LOUISIANA DEPARTMENT OF EDUCATION

Office of Teaching and Learning

Math K-12 Louisiana Student Standards Review: K-5 Math

Louisiana educators engaged in a professional review of the state's academic standards for mathematics to ensure they continue to maintain strong expectations for teaching and learning aligned with college and workplace demands. The new math standards will be effective beginning with the 2027-2028 school year. As part of the Louisiana Department of Education's (LDOE's) support for a seamless transition to these new standards, the LDOE identified the major changes in the standards and their potential impact on the criteria used to review instructional materials.

Title: **Eureka Math Squared**

Grade: **K-5**

Publisher: **Great Minds PBC**

Copyright: **2021**

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

This Mathematics review has been examined for the following major shifts in alignment resulting from the 2026 Louisiana Student Standards Review:

- Include revised domain titles, clusters of standards, and standard language to enhance the vertical progression of foundational skills to support the development of advanced abilities and to highlight the key focus areas within each domain and impact on future performance.
    - Numeracy & Operational Fluency
    - Algebraic Reasoning
    - Geometric Reasoning & Logic
    - Data Analysis & Measurement

The following criteria may be impacted:

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

This review **remains a Tier 1 rating.** As a result of these changes, the following chart identifies the potential impact on specific elements in the current review. The LDOE recommends that system curriculum staff, school leaders, and teachers consider this information when selecting and using instructional materials.

Criteria	Currently in the Rubric	Alignment Review	Impact of Review
1. Focus on Major Work (Non-Negotiable)	This program is currently reviewed as "Yes" for this criterion because the materials focus the majority of class time on the major work of the grade at all grade levels. In addition, the materials, including assessments, spend minimal time on content outside of the grade/course and do not hold students or teachers responsible for content that is beyond the scope of the grade/course.	Aligns	Materials align with the major work of the 2026 Louisiana Student Standards for Mathematics (LSSM) with the following implementation guidance. For future submissions, the LSSM must be seamlessly integrated and fully developed within the materials to successfully meet this criterion. **Grade 1** While LSSM 1.NOF.B.4 is not addressed in the Grade 1 materials, the correlation guide notes that LSSM 1.NOF.4.a is addressed in Grade 2, Module 3, Lessons 7, 8, and 16, and in Module 6, Lesson 2, and that LSSM 1.NOF.4.b is addressed in Grade 2, Module 1, Lessons 27 and 38. **Grade 3** While LSSM 3.NOF.A.1 is addressed in Grade 3, Module 5, Lessons 1-10, instruction includes partitioning a whole, but understanding a unit fraction as the quantity formed by 1 part when a set is partitioned into equal parts is not addressed.
2. Consistent, Coherent Content (Non-Negotiable)	This program is reviewed as "Yes" for this criterion because the materials consistently feature problems and activities that combine standards that address multiple clusters and domains, while supporting content supports the major work of the grade. In addition, the materials connect grade/course level work to prior knowledge and are consistent with	Aligns	Materials align with the supporting and additional work of the 2026 Louisiana Student Standards for Mathematics (LSSM) with the following implementation guidance. For future submissions, the LSSM must be seamlessly integrated and fully developed within the materials to successfully meet this criterion. **Grade 1:**

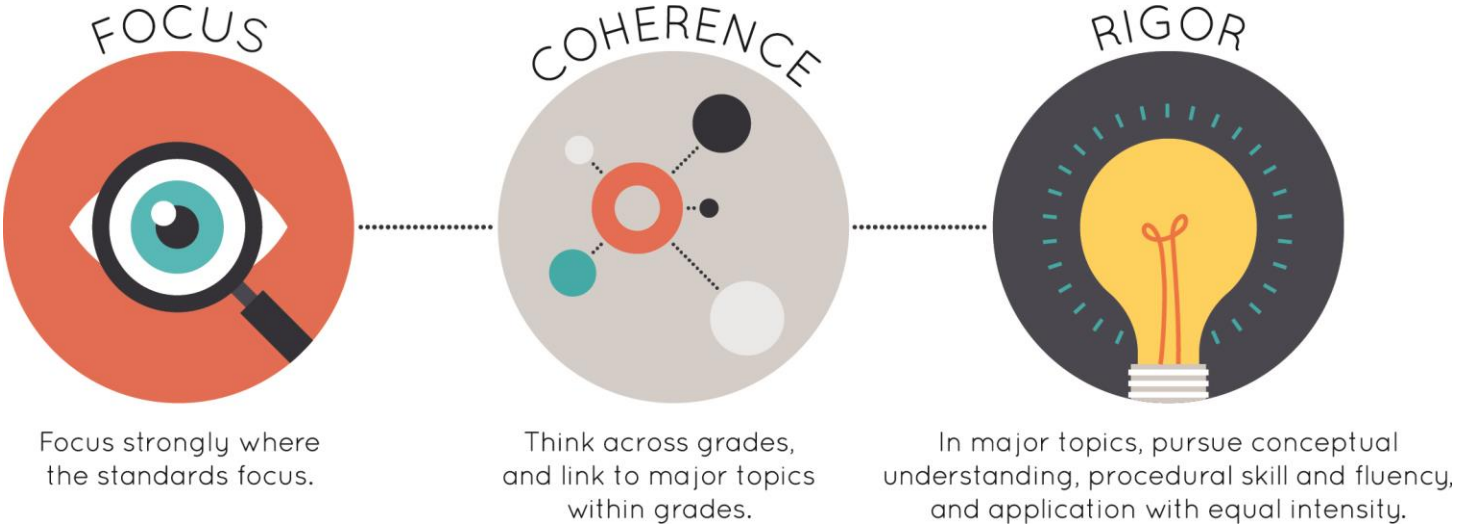
	the progression in the standards.		For LSSM 1.DM.C.4.a, explicit instruction or practice of using a scale of 2 is not evident in the materials. In Grade 1, Module 1, Lesson 5, students use a scale of 1, 5, and 10. Using the scale of 2 is only mentioned at the end of the lesson as teacher guidance notes, "If students select the chart, they may decide how to represent their set in the chart. For example, they may use tally marks or lines, drawings of the objects in each group, numbers, or groups of 2, 5, or 10." **Grade 2** While LSSM 2.DM.D.10 is not addressed in the Grade 2 materials, the correlation guide notes that it is addressed in Grade 3, Module 6, Lessons 22 and 23. **Grade 3** While LSSM 3.AR.D.9 is not addressed in the Grade 3 materials, the correlation guide notes that it is addressed in Grade 2, where students compare and order whole numbers within 1,000, and in Grade 4, where students compare and order whole numbers within 1,000,000. Specifically, LSSM 3.AR.D.9.a is addressed in Grade 2, Module 1, Lessons 35-38, and Grade 4, Module 1, Lesson 9. LSSM 3.AR.D.9.b is addressed in Grade 4, Module 1, Lesson 9. Additionally, the materials address LSSM 3.NOF.C.5; however, the lessons do not use the term, compatible numbers.

Instructional Materials Evaluation Tool for Alignment in Mathematics Grades K – 12 (IMET)

FULL CURRICULUM
Instructional Materials

Qualified for Abbreviated Review[1]

Strong mathematics instruction contains the following elements:



Title: **Eureka Math[2]**

Grade/Course: **K-5**

Publisher: **Great Minds PBC**

Copyright: **2021**

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	

Each set of submitted materials was evaluated for alignment with the standards beginning with a review of the indicators for the non-negotiable criteria. If those criteria were met, a review of the other criteria ensued.
Tier 1 ratings receive a "Yes" in Column 1 for Criteria 1-7.
Tier 2 ratings receive a "Yes" in Column 1 for all non-negotiable criteria, but at least one "No" for the remaining criteria.
Tier 3 ratings receive a "No" in Column 1 for at least one of the non-negotiable criteria.

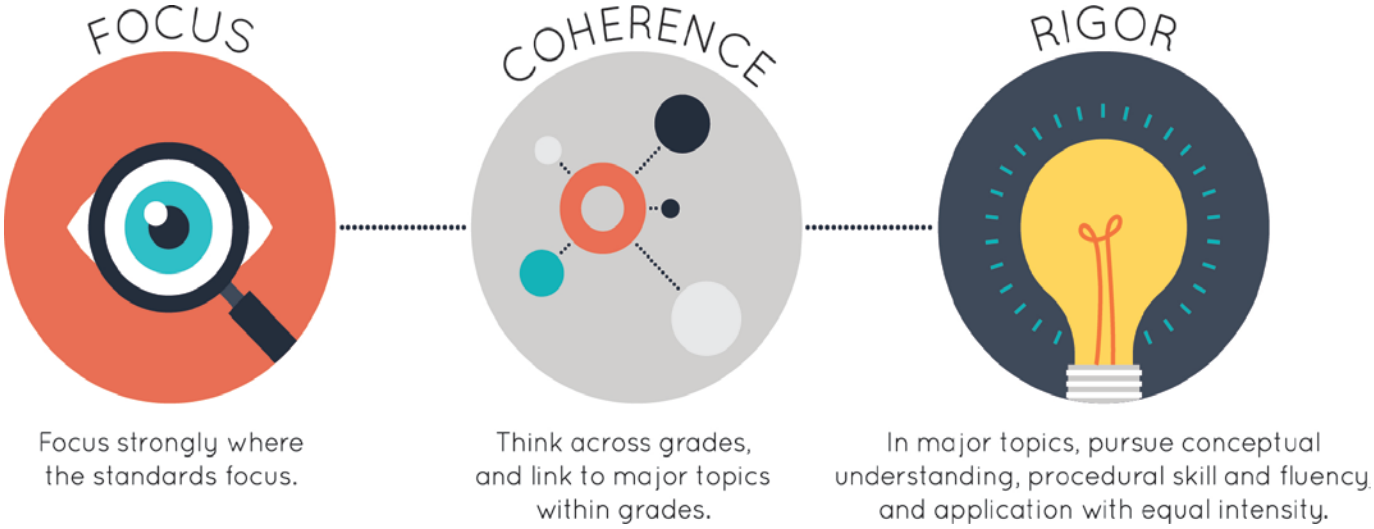
Click below for complete grade-level reviews:

Grade K (Tier 1) Grade 1 (Tier 1) Grade 2 (Tier 1) Grade 3 (Tier 1) Grade 4 (Tier 1) Grade 5 (Tier 1)

[1] Abbreviated Reviews are conducted in K-12 ELA and K-12 Math for submissions that **Meet Expectations** for Gateways 1 and Gateway 2 through EdReports. Reviewers considered these reports as they reviewed materials for alignment to Louisiana state standards and quality Non-negotiable indicators. See the full EdReports review at https://www.edreports.org/reports/overview/eureka-math2-2021.

Qualified for Abbreviated Review[1]

Strong mathematics instruction contains the following elements:



Title: **Eureka Math[2]**

Grade/Course: **K**

Publisher: **Great Minds PBC**

Copyright: **2021**

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	
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To evaluate instructional materials for alignment with the standards and determine tiered rating, begin with **Section I: Non-negotiable Criteria**.

- Review the **required**[2] 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.

[2] **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.			
Non-negotiable **1. FOCUS ON MAJOR WORK[3]:** Students and teachers using the materials as designed devote the large majority[4] of time to the major work of the grade/course. ☒ Yes ☐ No	**Required** **1a)** Materials devote the **majority** of class time to the major work of each grade/course.	**Yes**	Materials devote a large majority of time to the major work of the grade. Of the 126 lessons, 83% of instructional lessons are spent on major work of the grade. Specifically, 64% of lessons are spent on major standards, 18% of lessons are spent on a combination of major standards and supporting/additional standards, and 18% of lessons are spent on supporting or additional standards. Twelve of the lessons are labeled as optional.
	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.	**Yes**	Materials spend minimal time on content outside of the appropriate grade level. In assessment materials, assessment components do not make students/teachers responsible for any topics before the grade in which they are introduced. The instructional lessons and assessments focus on Grade K Louisiana Student Standards for Mathematics (LSSM). Observational assessments occur within the progression of lessons. Assessments are written using the language of the standards, such as "Can students solve the word problem by using objects or drawings to represent the story?" (LSSM K.OA.A.2) in Module 5, Topic B, Lesson 12. If students do not meet the standards in the observation

[3] For more on the major work of the grade, see Focus by Grade Level.
[4] 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%.

			assessments, an additional module assessment aligned to the standards is provided. The Louisiana Teacher Alignment Guide provides guidance and modifications for teacher implementation to align to the LSSM. Each lesson is aligned to at least one Grade K LSSM. Content exceeding the Grade K LSSM standards is clearly labeled. The materials do not assess topics before the grade in which they are introduced. For example, Lessons 17 and 18 in Module 4, Topic C are labeled as optional. The objective of Lesson 17 is to organize, count, and represent a collection of objects. Students make a number bond with five parts with a total of over 20 which extends beyond the standard LSSM K.CC.A.1. The materials also indicate content within a lesson that extends beyond the work of the grade level in the Differentiation: Challenge margin notes which invite students to work with problem types they wouldn't typically encounter until Grade 1.
Non-negotiable **2. CONSISTENT, COHERENT CONTENT** Each course's instructional materials are coherent and consistent with the content in the Standards. ☒ Yes ☐ No	**Required** **2a)** Materials connect **supporting content to major content** in meaningful ways so that focus and coherence are enhanced throughout the year.	**Yes**	Materials connect supporting content to major content in meaningful ways so that focus and coherence are enhanced throughout the year. Major work is often developed prior to supporting content and is then reinforced or applied in lessons that address supporting standards. Module 2 focuses on two- and three-dimensional shapes (LSSM K.G.A.1, K.G.A.2). In Topic A, students analyze and name two-dimensional shapes. In Topic B, students analyze and name three-dimensional shapes. In Topic C, students

			construct shapes. Throughout the lessons, students apply counting concepts (LSSM 4.CC.B.4) learned in the previous module as they count sides, corners, and faces of the shapes, reinforcing major Counting and Cardinality (CC) standards of the grade. In Module 3, Lessons 13-15, students use counting and comparing strategies developed earlier in the module and grade (major LSSM K.CC.C.6) to classify objects into categories based on their attributes (supporting LSSM K.MD.B.3). In Lesson 13, students first sort objects in two groups and then choose a strategy to compare two groups of cubes to determine which group has more or fewer. In Lesson 14, students continue to compare sets by first sorting number stairs into two groups and then matching each stair to a number on the number path. Finally, in Lesson 15, students sort different sized shapes, compare the number of shapes in each group, and then order the groups from fewest to most shapes.
	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.	**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, Module 1, connects Clusters A (Know number names and the count sequence) and B (Count to tell the number of objects) of the Counting and Cardinality (CC) domain as students count accurately and consider reasons to count and use numbers (LSSM K.CC.A.1, K.CC.A.3,

			K.CC.B.4.A, K.CC.B.4.B). Students count different manipulatives and objects such as foods and grocery lists. In addition to practicing numeral formation in isolation, students find purpose in counting and writing numbers through the familiar context of a restaurant in Module 1, Topics C and F. Through real-world applications, students discover the utility and efficiency of recording with a numeral (LSSM K.CC.A.3). The focus turns to varied configurations and conservation (LSSM K.CC.B.5) in Module 1, Topic E as students strategize to produce an accurate count. In Module 6, Lesson 7, students use number bonds, manipulatives, and models to decompose teen numbers. The lesson connects Clusters A (Know number names and the count sequence) and B (Count to tell the number of objects) of the Counting and Cardinality (CC) domain. The lesson also connects the Counting and Cardinality (CC), Operations in Algebraic Thinking (OA), and Number and Operations in Base Ten (NBT) domains. During the lesson, students write numbers up to 20 (K.CC.A.3), count to objects up to 20 (K.CC.B.5a), add and subtract using objects and drawings (K.OA.A.2), and compose and decompose numbers 11-19 (K.NBT.A.1). As the last module of the course, the lessons provide students the opportunity to learn and practice standards within multiple domains. The Fluency and Launch components of the lessons spiral skills throughout the modules.

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. ☒ Yes ☐ No	**Required** **3a)** ***Attention to Conceptual Understanding:*** Materials **develop conceptual understanding of key mathematical concepts,** especially where called for explicitly in specific content standards or cluster headings by featuring high-quality conceptual problems and discussion questions.	**Yes**	Materials develop conceptual understanding of key mathematical concepts, especially where called for explicitly in the standards. Throughout each of the modules, the materials provide activities and discussion prompts to build conceptual understanding. At the end of the lessons, students demonstrate an understanding of the concepts presented in the lesson. The materials align with the rigor expectations specified in the standards. Students develop the concepts through a combination of concrete, pictorial, and abstract experiences over time. Throughout the materials, students use visual models, multiple representations, and manipulatives to build conceptual understanding. For example, in Module 1, Topic A, students begin to develop an understanding of the relationship between numbers and quantities by classifying into categories and counting. Within the lessons, quantities are represented visually in order to support students in building mental representations of numbers. For example, in Lesson 3, students take the items in their classified groups and count them by putting each item in a box under an identified number. In the next lesson, students draw the items based on groups made and identify the number of items in each group (LSSM K.MD.B.3). In Module 1, Topic B, students continue to answer "how many" questions up to 5. In Lesson 6, students continue counting items in a

			group by touching and counting them (LSSM K.CC.B.4a, K.CC.B.4b, K.CC.B.5). Students continue to build conceptual understanding of counting and cardinality for numbers up to 5 in Lessons 7-9. Topic E builds on Topic B as students extend number core concepts and counting strategies to sets of 6-10 objects, increasing difficulty and rigor. The lessons progress by presenting items, objects, and numerals in a more scattered configuration with students accurately identifying the number of objects in a set (LSSM K.CC.B.4a, K.CC.B.4b, K.CC.B.5). In Lesson 23, students count different items in different orders but conserve the total of the set. For example, in the Learn section, students use a provided starting point and identify how many tiles are represented. Then, students spill beans out of a cup and identify how many beans (regardless of starting point). Then, in the problem set and debrief, students use unifix cubes and a number line to identify how many items are in their set. In Module 4, students focus on composition and decomposition of numbers before engaging in operations in Module 5 (LSSM K.OA.A.3). For example, in Module 4, Lesson 15, students model the decomposition of a group of 8 by acting out a story problem with a prompt of sitting or standing. From the models, students discuss a number bond or number sentence model by their actions. Throughout the lesson, students build conceptual understanding through story

			problems and are encouraged to use number bonds, math drawings, and ten-frames to model the decomposition of numbers less than or equal to 10. With the understanding of part-total relationships in a variety of contexts, students have the prerequisite knowledge to comprehend the meaning of addition and subtraction as they progress to Module 5. In the lessons, when students first write number sentences, everyday words such as “and” and “make” are coupled with the mathematical terminology “plus” and “equal,” supporting students in making meaning of number sentences. Students further demonstrate conceptual understanding by working in reverse as they tell a story to match a given number sentence in Module 5 Lessons 6 and 13. Throughout Module 5, Topics A and B, students regularly solve story situations, reinforcing the relationship between the equation and the context.
	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.	**Yes**	Materials are designed so that students attain the fluencies and procedural skills required by the standards. Each lesson begins with fluency practice to support a progression of learning over time throughout the course. Students have opportunities to develop procedural skills aligned with the standards in the materials. Fluency routines are developed over time to support students in counting and calculating as they are used consistently across lessons and include activities such as choral response, Whiteboard Exchange, and Sprint. The

			implementation guide provides guiding questions and suggestions for fluency implementation. Additionally, fluency is expected as an end-of-the-year performance expectation but can be achieved at various points throughout the year. Students use a Counting Glove, Beans and Hands Mat, and Whisper-Shout Counting Strategy in Module 1, Topic A which encourages students to practice and develop their counting and cardinality skills (LSSM K.CC.A.1 and LSSM K.CC.A.2). In Module 1, Topic B, Lesson 8, students count figures in linear and scattered configurations found in pieces of artwork (LSSM K.CC.B.5a and K.CC.B.5b). Students discuss procedural counting strategies when responding to the given prompts in the lesson, such as identifying the number of white flowers and explaining why a different strategy was used to count the scattered flowers versus the flamingos, which are arranged in a line. The lesson closes with a whole-group discussion about when it is appropriate to use each of the counting strategies (touch and count, move and count, or mark and count). In Module 1, Topic E, Lesson 19, students practice the fluency standards of counting objects in a collection (LSSM K.CC.B.5a, K.CC.B.5b). As students count items, teachers complete observational assessments to ensure that students are saying the correct number sequence and the last number in the count to identify the total. In Module 4, Lessons 17 and 18, students find partner numbers to make 5

			and 10. These foundational lessons support student fluency in knowing sums to 10. In Module 5, students apply counting and cardinality concepts to develop fluency with addition and subtraction as they move from counting all, counting on, and making simple addition and subtraction problems. In Module 5, Topic A, Lessons 1-6, students develop addition concepts with context, and, in Lesson 7, students add two parts to find the total without story context to build fluency within 5 (LSSM K.OA.A.5). The same structure is used in Topic B, as students develop subtraction concepts in Lesson 8-13, and, then, in Lesson 14, students subtract to find the difference without context to build fluency within 5 (LSSM K.OA.A.5).
	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.	**Yes**	Materials are designed so that students spend sufficient time working with engaging applications. The materials provide engaging applications with frequent practice of single and multi-step problems. The progression of the modules includes opportunities within the lessons to apply conceptual understanding and procedural skills within the context of real-world problems. Students answer questions in pairs, small groups, and whole groups where they justify and explain their reasoning. Lessons include explicit instruction for solving word problems and student-led problem-solving opportunities. The LSSM for Grade K includes one application standard, LSSM K.OA.A.2. This standard is first addressed

			in Module 4, Topic C, Lesson 11 after students have developed an understanding of counting and cardinality in Module 1-3. In Module 4, Topics A and B, students compose and decompose numbers answering how many questions within a part-total scenario. In Topic C, students apply conceptual understanding and procedural skills to real-world addition problems. Students solve addition problems within 10 using drawings and objects (LSSM K.OA.A.2). During the topic, students transition from part-total thinking into decomposition and composition through story contexts as they identify parts and totals to find the unknown. Problem types include Put Together with the total unknown and Take Apart with both addends unknown. The materials include photographs of animals and crayons and objects, such as beans, bean bags, and cubes to model addition and subtraction. In Lesson 12, students draw the ducks in a scenario of both adult and baby ducks to be able to compose the total number of ducks represented in the story. In Lesson 13, students draw to model parts of the story. Students then discuss and determine which strategies work best for them. For example, Libby's way of solving the story to find the unknown is to use unifix cubes and create a number bond. Jason's way of solving the same story is to draw the dots in the circles of the number bond in order to find the unknown. Both arrive at a total of 9 pennies for a pencil. The materials suggest

			students who are struggling with the abstract story of the part-total relationship benefit from hearing their peer's explanations and strategies. This lesson specifically activates background knowledge about tools in general and clarifies the meaning of tools in the context of math. This lesson focuses on choosing and using math tools such as cubes, number bonds, drawings, and 10-frames. In Lesson 14, students model taking apart with given addends in unknown situations, such as "Jackson is playing with 10 blocks. Some are in the tower and some are not. Show how they could look."
	Required **3d)** ***Balance:*** The three aspects of **rigor** are not always treated together and are not always treated separately.	**Yes**	It is evident in the materials that the three aspects of rigor are not always treated together and are not always treated separately. The materials reflect the balance of rigor in the standards. The Grade K LSSM focus heavily on conceptual understanding, and the structure of the materials help students develop the foundational concepts and skills necessary to build and apply math knowledge. Procedural skills and fluency appear in each lesson in the opening fluency activity. The Fluency component enables students to develop fluency with skills from all clusters. The Launch and Learn components engage students in both conceptual understanding and procedural skill and fluency. The Problem Set and Exit Ticket offer students the opportunity to independently apply their procedural skill and fluency, show their conceptual

			understanding, and solve applications such as word problems. In Land, students often engage in a discussion about their conceptual understanding of the student work. Specific lessons focus on the application standard, LSSM K.OA.A.2, and application skills are interwoven throughout the materials in other modules. Module 1, Topic E, Lesson 20 provides an example of how the aspects of rigor are not always treated separately. In this lesson, students are formally introduced to the 5-group model. Conceptually, students learn to recognize numbers 6-10 relative to 5, thinking of 6 as 5 and 1, for example (LSSM K.CC.A.3, LSSM K.CC.B.4b, and LSSM K.CC.B.5). Students relate this new model to a familiar one that also relies on grouping 5 as a unit, a finger-counting method known as counting the math way. The fluency component enables students to develop fluency with skills from all clusters such as addition and subtraction within 5. Fluency is developed as students continue to learn new strategies throughout the materials. Module 5, Topic A, Lesson 3 demonstrates this progression as students review and work on fluency skills, then use those skills to explore a scenario that requires them to apply their understanding of addition and subtraction to a problem with children on a rollercoaster. Students spend the majority of the lesson constructing methods and strategies for solving the question from the story and then share their strategies with the class

			to identify the procedural components for all (LSSM K.CC.B.5 and LSSM K.CC.B.6). In Module 4, Topic C, Lesson 15, all three aspects of rigor are presented in conjunction for students to answer the culminating question of "How do you decide to write an addition or subtraction sentence for a story?" The materials provide real-world story prompts along with the use of conceptual models and practice with procedural skills of addition and subtraction (LSSM K.OA.A.1, LSSM K.OA.A.2, and LSSM K.OA.A.3).
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. ☒ Yes ☐ No	**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.	**Yes**	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. The materials support students' habits of mind based on the mathematical practices while also building conceptual understanding, developing fluency, and applying understanding. Margin notes in the teacher materials provide cues and connections to the work of the students and the Standards for Mathematical Practice. Each lesson in the modules has a section titled, "Promoting the Standards for Mathematical Practice,'' which identifies the mathematical practice standards present in the lesson. This section also provides context of where Grade K students should be in the progression of the mathematical practices. For example, Module 3 focuses on the comparison of measurement units. In Lesson 6, students reason abstractly and

			quantitatively (MP.2) as they compare the lengths of cube sticks by using numbers instead of direct comparisons (LSSM K.MD.A.2). In Module 4, Topic B, Lesson 10, students model with mathematics (MP.4) as they draw a picture and a number bond to match how they sorted their collection of objects (LSSM K.OA.A.1). This lesson gives students a chance to create a concrete model, a drawing, to determine the unknown and then represent a more abstract model, a number bond. In Module 5, Lesson 6, students participate in a Number Sentence Hunt. Table groups use a card with a number sentence and search the room for a picture to match the number sentence. Multiple pictures for some of the number sentences provide students the opportunity to question, critique, justify, and defend their selections (MP.3) by asking questions and answering their peers (LSSM K.OA.A.1). In Module 5, Lesson 26, students look for and make use of structure by looking for and making use of patterns (MP.7). Students find patterns when they add different numbers to a specific number and a specific number to different numbers using a robot as a visual (LSSM K.OA.A.1, LSSM K.OA.A.2, LSSM K.OA.A.3, and LSSM K.OA.A.4).
	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	**Yes**	Materials provide sufficient opportunities for students to construct viable arguments and critique the arguments of others concerning key grade-level mathematics that is detailed in the content standards. The lessons are structured with

	as a form of argument, attending thoroughly to places in the standards that explicitly set expectations for multi-step problems.		opportunities for students to engage in mathematical reasoning through discussion questions and prompts. The materials provide opportunities for students to form viable arguments and critique the arguments of others throughout the lessons. Lessons also include several routines designed to promote discourse. For example, students determine a misconception in sample work and then construct viable arguments to convince the teacher of the correct solution path or solution. The materials also provide opportunities for students to conduct error analyses. For example, in Module 5, Lesson 13, the teacher reads a subtraction story about 6 baseballs and 2 are taken away. The teacher shows the students a picture of 6 baseballs and 2 of them are crossed out. Then, students observe two number sentence cards, 6-2=4 and 4-2=2. The teacher then challenges the students to choose the number sentence that represents the subtraction story while also pointing out that they can see the 4 baseballs not crossed out and the 2 crossed out so “4-2=2” must be the accurate response. Students are challenged to find the flaw in the teacher’s reasoning and explanation as well as use precise language to explain the part-total relationship between the number sentence and the pictorial model. In Module 4, Lesson 15, students explain their thinking by modeling different drawings. Since there is more than one way, students analyze and discuss each

			other's models. In Lesson 17, students count a collection of items with a partner and explain their reasoning for how they organized the objects to prepare to count them, either by color, shape, or object. In Module 5, Lesson 6, students participate in a Number Sentence Hunt. Table groups are given a card with a number sentence and encouraged to search the room for a picture to match the number sentence. There are multiple pictures for some of the number sentences that give students the opportunity to question, critique, justify, and defend their selections by asking questions and answering their peers.
	Required **4c)** Materials explicitly attend to the **specialized language** of mathematics.	**Yes**	Materials explicitly attend to the specialized language of mathematics. The materials use and encourage the use of accurate mathematical terminology as appropriate for the grade level. The Terminology Resource identifies the specialized language of mathematics that is used throughout a module. The resource lists New and Familiar terminology with definitions and descriptions from the module. Items in the New category are discipline-specific words that are introduced to students within the module. These items include the definition, description, or illustration as it is presented to students. Language Support margin notes embedded in the lessons provide guidance to teachers as they support students with the specialized language of mathematics. Each Module Overview and Module Assessment

			Description addresses the proper terminology for students to use as well as definitions for key terms. The sample dialogue in each lesson includes the terminology teachers should expect from their students when they answer questions or share their thinking. For example, in Module 3, the Topic A Overview highlights the importance of students using precise terminology and making complete comparison statements frequently and consistently throughout the lessons. In Lesson 1, students reason why animals were circled in a city-scape picture to notice the measurable attribute of length. Then, they then compare the animal's sizes to each other and in relation to the building in the picture. The margin notes explain that students will describe measurable attributes precisely throughout the module. In Module 4, students classify geometric figures based on their attributes. Students use vocabulary words to describe the figures, such as curves, straight sides, corners, open and closed. Students act out these terms with their fingers and whole bodies in various lessons to build the connection between the definition and what it looks like and to foster the retention of the definition. Students also use position words and names of the figures, such as triangles, rectangles, and hexagons. In the Proficiency Indicators at the end of the unit, students describe objects in their classroom environment using the vocabulary words for figures. In Module 6,

			students build place value foundations. Vocabulary such as total and parts are reinforced through each lesson as students count to 100 and decompose numbers. Students use these vocabulary terms to make number bonds and choose operations for number sentences. Sample student responses contain total, parts, and number sentences in the answers students provide.
	4d) There are teacher-directed materials that **explain the role of the practice standards** in the classroom and in students' mathematical development.	**Yes**	Materials include teacher-directed materials that explain the role of the practice standards in the classroom and in students' mathematical development. The materials provide a full explanation of the purpose and intent of the practice standards with in-lesson connections and context for instruction. Each lesson contains a section entitled "Promoting the Standards for Mathematical Practice" that links a specific practice standard to the content of the lesson. The section provides the context of the progression of the standard in the current grade level and in future learning. It provides a specific reference of the lesson activity that implements the practice standard. At the conclusion of each Module, when reviewing achievement descriptors and standards, mathematical practice standards are listed for each module. Within the Implementation Guide, the mathematical practices are explained and highlighted in the margin notes as they appear in specific lessons. Additionally, in the Implementation Guide, the grade level standards and practice standards are

			listed for educators as they are presented in all modules. In the section highlighting Lesson Facilitation, the guide describes effective delivery as “delivery that fosters student ownership and belonging. This curriculum supports this aspect by naturally presenting opportunities for students to practice the mathematical practice standards as they arise within the lessons.” For example, Module 2, Lesson 2, the margin notes connect the activity to MP.3 and MP.6, and Lesson 1. The notes coach the teacher to encourage students to construct viable arguments for the shape classification using precise language learned in Lesson 1. The margin notes provide guided questions to intervene if students disagree by asking, “What questions can you ask your partner about why they think this is or isn’t a triangle?” or “Can you use words like straight sides, corners, and closed to explain why you think this is or isn’t a triangle? Try it!” In Module 5, Lesson 9, the materials state that “Mathematicians use a special symbol to write a subtraction number sentence. Instead of writing take away, they write a minus sign.” The Promoting the Standards for Mathematical Practice in this section references MP.2, reasoning abstractly and quantitatively, as students “decontextualize the idea of taking away by using the minus sign. When they read the number sentence as a storyteller, they contextualize the minus sign as the takeaway part of the story.” The questions provided in each mathematical practice

			margin note are written in language appropriate to the grade level, promote engagement in the identified math practice, and are coherent across grades.
Section II: Additional Alignment Criteria and Indicators of Superior Quality			
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. ☐ Yes ☐ No	**Required** **5a)** Materials provide all students **extensive work** with grade/course-level problems.		See EdReports for more information.
	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.		
	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.		
	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.		
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	**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.		
	Required **6b)** Assessment items include a **combination of tasks** that require students to demonstrate conceptual		

Student Standards for Mathematics. ☐ Yes ☐ No	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.		
	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.		
	6d) Materials provide 2-3 **comprehensive assessments** (interims/benchmarks) that measure student learning up to the point of administration.		
7. ADDITIONAL INDICATORS OF QUALITY: Materials are well organized and provide teacher guidance for units and lessons.	**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.		
Materials provide timely supports to target specific skills/concepts to address students' unfinished learning in order to access grade-level work. ☐ Yes ☐ No	**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.		
	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.		

	7d) Materials **identify prerequisite skills and concepts** for the major work of the grade/course, connected to the current on-grade/course-level work.	**Yes**	Materials identify prerequisite skills and concepts for the major work of the grade when applicable. Each module contains a section titled “Before This Module” and “After This Module.” In Module 1, the section says that Grade K “students do not need previous experience with Eureka Math or any preschool curriculum at the beginning of the module. However, many modules from prekindergarten directly support the work in this module.” Later modules reference skills that Grade K students obtained in prior modules. At the beginning of Module 3, Topic A, the topic overview states “Young children have many experiences with height and length before entering kindergarten.” The later modules build, scaffold, and spiral through information that is previously learned throughout the materials. For example, in Module 5, Addition and Subtraction, the Before This Module section states that in Module 4, students “explore number relationships through sorting, games, and math stories.”
	7e) Materials provide guidance to help teachers **identify students** who need prerequisite work to engage successfully in core instruction, on-grade/course-level work.	**No**	Materials do not provide guidance to help teachers identify students who need prerequisite work to engage successfully in core instruction. All assessments focus on Grade K standards. There are no diagnostic or pre-assessments prior to instruction. There is no specific guidance on how to identify or support students missing the prerequisite skills. However, guidance in Module 1 notes that students do not require any preschool lessons to

			access the material in the Grade K materials.
	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.	**No**	Materials do not provide targeted, aligned, prerequisite work for the major work of the grade directly connected to specific lessons and units in the curriculum. However, content is reviewed in later lessons and included on the Observational Assessments Recording Sheets, but no prior content is required by the materials. For example, Module 4, Topic A, Lesson 1, Shapes and Attributes, helps students reactivate knowledge of shape identification from Module 2 so that they can do the more sophisticated work of composing shapes and counting the parts. The fluency component is a review of previous material. Future modules build on the previous ones by introducing larger numbers and/or decompositions/compositions. In Module 5, Topic A, the overview notes, "In previous modules, students describe part-total relationships, such as, '9 is 7 and 2, or '7 and 2 is 9'. In Topic A, they begin to read number sentences using mathematical language, '7 plus 2 equals 9' or '9 is 7 plus 2'."
	7g) Materials provide **clear guidance and support** for teachers about the structures that allow students to appropriately address unfinished learning using prerequisite work.		See EdReports for more information.

FINAL EVALUATION

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.

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 Quality[5]	1. Focus on Major Work	**Yes**	Materials devote a large majority of time to the major work of the grade. Materials spend minimal time on content outside of the appropriate grade level. In assessment materials, assessment components do not make students/teachers 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 and/or two or more domains in the grade level 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-level content and is meaningfully present

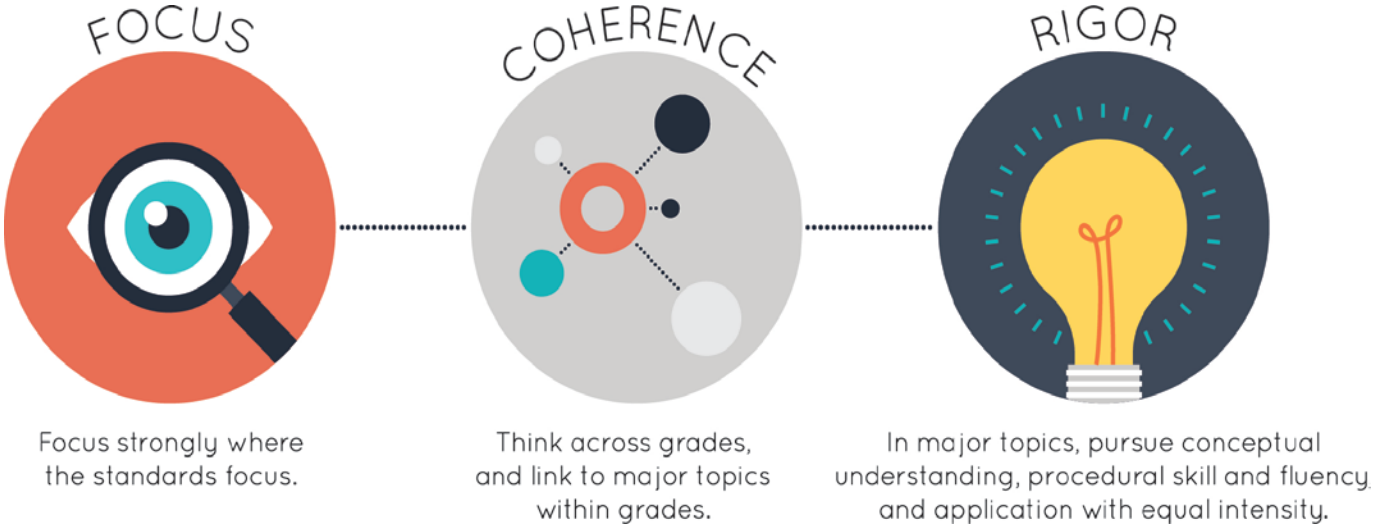
[5] Must score a "Yes" for all Non-negotiable Criteria to receive a Tier 1 or Tier 2 rating.

			throughout the materials. Materials provide sufficient opportunities for students to construct viable arguments and critique the arguments of others concerning key grade-level mathematics that is detailed in the content standards. Materials explicitly attend to the specialized language of mathematics. 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 Quality[6]	5. Alignment Criteria for Standards for Mathematical Content		See EdReports for more information.
	6. Quality of Assessments		See EdReports for more information.
	7. Additional Indicators of Quality		Materials identify prerequisite skills and concepts for the major work of the grade when applicable. Materials do not provide guidance to help teachers identify students who need prerequisite work to engage successfully in core instruction. Materials do not provide targeted, aligned, prerequisite work for the major work of the grade directly connected to specific lessons and units in the curriculum.
FINAL DECISION FOR THIS MATERIAL: **Tier 1, Exemplifies quality**			

[6] Must score a "Yes" for all Additional Criteria of Superior Quality to receive a Tier 1 rating.

Qualified for Abbreviated Review[1]

Strong mathematics instruction contains the following elements:



Title: **Eureka Math[2]**

Grade/Course: **1**

Publisher: **Great Minds PBC**

Copyright: **2021**

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	

[1] Abbreviated Reviews are conducted in K-12 ELA and K-12 Math for submissions that **Meet Expectations** for Gateways 1 and Gateway 2 through EdReports. Reviewers considered these reports as they reviewed materials for alignment to Louisiana state standards and quality Non-negotiable indicators. See the full EdReports review at https://www.edreports.org/reports/overview/eureka-math2-2021.

To evaluate instructional materials for alignment with the standards and determine tiered rating, begin with **Section I: Non-negotiable Criteria**.

- Review the **required**[2] 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.

[2] **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.			
Non-negotiable **1. FOCUS ON MAJOR WORK[3]:** Students and teachers using the materials as designed devote the large majority[4] of time to the major work of the grade/course. ☒ Yes ☐ No	**Required** **1a)** Materials devote the **majority** of class time to the major work of each grade/course.	**Yes**	Materials devote a large majority of time to the major work of the grade. Of the 144 lessons, 89%, of instructional lessons, are spent on major work of the grade. Specifically, 83% of lessons are spent on major standards, 6% are spent on a combination of major standards and supporting/additional standards, and 11% are spent on supporting or additional standards. Four of the lessons are labeled as optional.
	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.	**Yes**	Materials spend minimal time on content outside of the appropriate grade level. In assessment materials, assessment components do not make students/teachers responsible for any topics before the grade in which they are introduced. The instructional lessons and assessments focus on Grade 1 Louisiana Student Standards for Mathematics (LSSM). Observational assessments occur within the lesson and use the language of the standards. In Module 2, Topic D, Lesson 18, the end of lesson Exit Ticket assess if students can subtract using a related addition fact (LSSM 1.OA.B.4). This formative data informs instructional decisions for future lessons in the module. The Louisiana Teacher Alignment Guide

[3] For more on the major work of the grade, see Focus by Grade Level.
[4] 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%.

			provides guidance and modifications for teacher implementation to align to the LSSM. Each lesson is aligned to at least one Grade 1 LSSM. Content exceeding the Grade 1 LSSM standards is clearly labeled. The materials do not assess topics before the grade in which they are introduced. For example, Module 4, Lesson 14 is labeled optional, and the Alignment Guide provides additional guidance to modify Lessons 15 and 16 in order to align with LSSM 1.MD.D.5. The Alignment Guide also replaces the Fluency activities in Module 5, Topics C and D, Lessons 10 - 16 with relating addition and subtraction fluency with counting pennies and nickels and telling time with dimes and quarters. The materials also indicate content within a lesson that extends beyond the work of the grade level in the Differentiation: Challenge margin notes which invite students to work with problem types they wouldn't typically encounter until Grade 2.
Non-negotiable **2. CONSISTENT, COHERENT CONTENT** Each course's instructional materials are coherent and consistent with the content in the Standards. ☒ Yes ☐ No	**Required** **2a)** Materials connect **supporting content to major content** in meaningful ways so that focus and coherence are enhanced throughout the year.	**Yes**	Materials connect supporting content to major content in meaningful ways so that focus and coherence are enhanced throughout the year. In Module 1, Lesson 1, students explore ways of organizing by counting and comparing bears, cubes, and Unifix Cubes (LSSM 1.NBT.B.3). Lessons 2-6 reinforce this concept as students count, organize, represent, and compare data with two to three categories, connecting supporting LSSM 1.MD.C.4 to major LSSM 1.NBT.B.3. For example, in Lesson 6, students answer the key question "How do tally marks make counting and

			comparing easier?" Students collect data from a video and represent it pictorially with tally marks and then count and compare the totals. In Lessons 7-9, students develop strategies to find the total of two or three addends, compare categories by using symbols, and determine how many more are in one category than in another (LSSM 1.NBT.B.3, 1.MD.C.4, 1.OA.C.6). Students extend this learning in Module 2, Lessons 1-9 as they explore addition and subtraction relationships focusing on LSSM 1.OA.A.1, 1.OA.C.5, and 1.OA.C.6. Then, in Lesson 23, students compare categories in a graph to figure out how many more, connecting supporting LSSM 4.MD.C.4 to major LSSM 1.OA.A.1. In Module 4, Lessons 15 and 16, students compare sets of like coins and find the total value of a collection of coins within fifty cents, applying concepts of counting, comparing, and adding connecting LSSM 1.MD.C.5 to major Operations and Algebraic Thinking (OA) and Number and Operations in Base Ten (NBT) concepts.
	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.	**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, Module 3, Topic A connects Cluster A (Represent and solve problems involving addition and subtraction) and B (Understand and apply properties of operations and the relationship between addition and subtraction) of the

			Operations and Algebraic Thinking (OA) domain. In this topic, students use the commutative and associative properties (LSSM 1.OA.B.3) to order and group parts efficiently to make 10 when solving three-addend word problems (LSSM 1.OA.A.1). Module 4, Lesson 10 connects the Measurement and Data (MD), Numbers and Operations in Base Ten (NBT), and Operations and Algebraic Thinking (OA) domains. In the lesson, students measure lengths (LSSM 1.MD.A.2) using 10-centimeter sticks and 1-centimeter sticks representing tens and ones (LSSM 1.NBT.B.2) to solve addition and subtraction problems when comparing lengths (LSSM 1.OA.A.1). Problems and activities also connect domains in meaningful ways. For example, the concept of equality (LSSM 1.OA.D.7) is carefully woven into each module. Module 5, Lesson 23 connects the Operations and Algebraic Thinking (OA) and Number and Operations in Base Ten (NBT) domains. During the lesson, students decompose two-digit numbers into tens and ones and then strategically add the tens first (LSSM 1.NBT.C.4), such as 28 + 12. Students determine that 28 + 12 is equal to 28 + 10 + 2 because they both equal 40 (LSSM 1.OA.D.7).
Non-negotiable **3. RIGOR AND BALANCE:** Each grade's instructional materials reflect the balances in the Standards and help students meet the Standards' rigorous	**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.	**Yes**	Materials develop conceptual understanding of key mathematical concepts, especially where called for explicitly in the standards. Throughout each of the modules, the materials provide activities and discussion

expectations, by helping students develop conceptual understanding, procedural skill and fluency, and application. ☒ Yes ☐ No			prompts to build conceptual understanding. At the end of the lessons, students demonstrate an understanding of the concepts presented in the lesson. The materials align with the rigor expectations specified in the standards. Students develop the concepts through a combination of concrete, pictorial, and abstract experiences over time. Throughout the materials, students use visual models, multiple representations, and manipulatives to build conceptual understanding. For instance, students develop conceptual understanding of place value over the course of the materials (LSSM 1.NBT.B.2). Module 1 lays the foundation for later bundling 10 ones to make a unit of ten by having students count on from 10 to find teen totals. In Module 5, Topic A, Lesson 3, students develop conceptual understanding as they determine the values represented by the digits of a two-digit number (LSSM 1.NBT.B.2). In the Launch section of the lesson, students watch a video of a baker boxing doughnuts into groups of 10 to provide a groupable pictorial model to support conceptual understanding of place value. Students notice how the baker groups the doughnuts into boxes of 10 and tell how many full boxes the baker can make (LSSM 1.NBT.B.2c). During the Learn section, students refer back to the number of doughnuts the baker has at the beginning of the video, including 1 box of 10 with 43 individual doughnuts to be boxed. This is recorded as 1 ten and 43

			ones. Students look at the image at the end of the video which shows 5 full boxes and 3 individual doughnuts. Students identify the number of full boxes as 5 tens and individual doughnuts as 3 ones and the total number of doughnuts as 53. The activity provides conceptual place value understanding by demonstrating that two-digit numbers can be expressed as tens and ones. The lesson extends this understanding to the concept that numbers, such as 53, can be represented as a different number of tens and ones, such as 1 ten and 43 ones or 5 tens and 3 ones. In Module 4, Lesson 4, students measure the length of an object and write the length as a whole number of centimeters (LSSM 1.MD.A.2). During the Build and Compare: Length and Height activity, students form pairs to compare lengths or heights of centimeter cubes (LSSM 1.NBT.B.3). Students use the sentence frames "__ cubes is taller than/shorter than/the same height as ___ cubes" and "___ is greater than/less than/equal to ___" with the corresponding symbol. When students roll the die, they compare their number of centimeter cubes first horizontally and then a stacked vertical height. Students use the sentence frame to compare their cubes to their partner's cubes. During the Learn section of the lesson, students use conceptual understanding to identify behaviors that lead to accurate measurements such as laying units end to end with no gaps (LSSM 1.MD.A.2).

			Students count chorally the number of centimeter cubes stacked accurately to measure the height of an owl. Students notice the measurement behaviors used to accurately measure the owl's height, including no gaps or overlaps and the cubes are end to end in a straight line. Students use kinesthetic movements to show the vertical height and horizontal length and develop an understanding of the definitions of "height" and "length" based on their movements to help build conceptual understanding. Next, students apply accurate measurement behavior to find the lengths of various classroom items, such as markers, glue sticks, paper clips, and pencils (LSSM 1.MD.A.2). Students measure each item with centimeter cubes and record their findings on their Measuring Recording page in their workbook. Students compare their measurements with their partners' measurements and measure again if they have different measurements.
	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.	**Yes**	Materials are designed so that students attain the fluencies and procedural skills required by the standards. Each lesson begins with fluency practice to support a progression of learning over time throughout the course. Students have opportunities to develop procedural skills aligned with the standards in the materials. Fluency routines are developed over time to support students in counting and calculating as they are used consistently across lessons and include activities such as choral response,

			Whiteboard Exchange, and Sprint. The implementation guide provides guiding questions and suggestions for fluency implementation. Additionally, fluency is expected as an end-of-the-year performance expectation but can be achieved at various points throughout the year. Students are expected to fluently add and subtract within 10 (LSSM 1.OA.C.6) by the end of the grade. In Module 2, Topic A, Lessons 2 and 3 guide students to fluently subtract all, 0, 1, and 1 less than the total from any number within 20. Topic B, Lesson 7 helps students become fluent with subtracting within 10 by using finger work. Later in Topic D, Lessons 17-19, after students develop an understanding of the relationship between addition and subtraction as they use related addition facts to subtract fluently within 10. Module 5 builds strategies for addition within 50 (LSSM 1.NBT.C.4). In Module 5, Topic C, students use concrete and pictorial models to combine a one-digit addend and a two-digit addend by making the next 10. In Topic D, students add multiples of 10 to any number. In Module 6, students engage in Happy Counting to practice counting up to 120 (LSSM 1.NBT.A.1). In Module 2, Topic D, Lesson 16, students apply procedures to accurately, efficiently, and flexibly subtract within 20 by using strategies such as counting on or back (LSSM 1.OA.C.6). During the Launch section of the lesson, students identify counting on or back as strategies to solve

			the following problem: “There are 13 chickens total. Four chickens are in the grass. The rest are in the chicken coop. How many chickens are in the coop?” The students identify that counting back is more efficient because there are only 4 chickens to count back the total. During the Learn sections, students determine the efficiency of each counting on or counting back by relating the known part to the given whole. Students use their fingers, number lines, and total-part-part frames to subtract differences. In Module 4, Topic D, Lesson 15, students count a set of like coins having a value of up to 50 cents (LSSM 1.MD.D.5). During the Launch section of the lesson, students sort and identify the values of a penny, nickel, and dime. Within the context of sorting and counting coins, the materials provide the definitions of coins and cents. Students identify that the value of pennies can be determined by counting by ones, dimes by counting by tens, and nickels by counting by fives or knowing that two nickels have a value of 10. Students identify the value of a quarter. When completing the problem set and exit slip, students determine the value of a given group of coins in isolation.
	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	**Yes**	Materials are designed so that students spend sufficient time working with engaging applications. The materials provide engaging applications with frequent practice of single and multi-step problems. The progression of the modules includes opportunities within the lessons to apply conceptual understanding and

	problem solving. The problems attend thoroughly to those places in the content standards where expectations for multi-step and real-world problems are explicit.		procedural skills within the context of real-world problems. Students answer questions in pairs, small groups, and whole groups where they justify and explain their reasoning. Lessons include explicit instruction for solving word problems and student-led problem-solving opportunities. In Module 1, Lesson 2, students solve engaging application problems by counting and comparing data. Students generate data by choosing whether they rather listen to music or stories. Students create a number path with counting cubes for each of the categories they selected. The number paths are lined up with labels to create a graph with a title (LSSM 1.MD.C.4). In Lesson 3, students sort and represent data into three categories. Students use comparison symbols and sentence frames to compare the red, blue, and yellow cubes as shown in a graph. In the Debrief section, students complete a think-pair-share answering "What we can learn from a graph?" and respond with comparisons of the different colored apples on the graph. In Lesson 6, students represent the data of three categories with tally marks. Students use physical craft sticks to create tally marks to represent data. Students use the tally mark to write comparison statements about given data. In Module 2, Topic B, Lesson 6, students represent and solve related addition and subtraction result unknown part problems (LSSM 1.OA.A.1). Students use the Read, Write, Draw process (RDW) to solve story

			problems. Students solve the following word problem, “9 bugs are on a leaf. 3 bugs fly off the leaf. How many bugs are on the leaf now?” The real-world story problems allow students to apply their subtraction knowledge by drawing bugs on a leaf using total-part-part relationships. Students find the unknown part in a given problem using addition or subtraction and number bonds. Students apply the mathematics they know to solve real-world problems in lessons throughout the materials.
	Required **3d) *Balance:*** The three aspects of **rigor** are not always treated together and are not always treated separately.	**Yes**	It is evident in the materials that the three aspects of rigor are not always treated together and are not always treated separately. The materials reflect the balance of rigor in the standards. The Grade 1 LSSM focus heavily on conceptual understanding, and the structure of the materials help students develop the foundational concepts and skills necessary to build and apply math knowledge. Procedural skills and fluency appear in each lesson in the opening fluency activity. The Fluency component enables students to develop fluency with skills from all clusters. The Launch and Learn components engage students in both conceptual understanding and procedural skill and fluency. The Problem Set and Exit Ticket offer students the opportunity to independently apply their procedural skill and fluency, show their conceptual understanding, and solve applications such as word problems. In Land, students often engage in a discussion about their

			conceptual understanding of the student work. Specific lessons focus on the application standards, LSSM 1.OA.A.1, 1.OA.A.2, and 1.MD.C.4, and application skills are interwoven throughout the materials in other modules. In Module 3, Topic D, Lesson 19, students apply addition and subtraction skills to solve problems within 20 and use conceptual understanding to represent two-digit numbers within 50 as tens and ones (LSSM 1.OA.A.1, 1.NBT.B.2, 1.NBT.B.2b, 1.NBT.B.2c). Students use the RDW process and number bonds to solve problems, with the change unknown, such as “Kit has 16 rocks. She takes some to school. There are 12 rocks at home. How many rocks did Kit take to school?” In Module 2, Topic C, Lesson 12, students use conceptual skills to solve application subtraction story problems while practicing procedural skills (LSSM 1.OA.A.1, LSSM 1.OA.C.5, LSSM 1.OA.C.6). The aspects of rigor are treated together when students count back to determine the value of an unknown part in an equation. Module 5, Topic D, Lesson 16 provides an example of how the three aspects of rigor are addressed and balanced. The objective is to use single-digit facts to add and subtract multiples of 10 (LSSM 1.NBT.C.4, 1.NBT.C.6). In the Launch, students use their fingers as concrete models of a unit of 10. They combine their hands in pairs and small groups to develop their conceptual understanding of how using units of ten (2

			tens + 2 tens = 4 tens) can help them add multiples of ten (20 + 20 = 40). Throughout the materials, the lessons treat the aspects of rigor together when appropriate and separate when needed.
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. ☒ Yes ☐ No	**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.	**Yes**	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. The materials support students' habits of mind based on the mathematical practices while also building conceptual understanding, developing fluency, and applying understanding. Margin notes in the teacher materials provide cues and connections to the work of the students and the Standards for Mathematical Practice. Each lesson in the modules has a section titled, "Promoting the Standards for Mathematical Practice,'' which identifies the mathematical practice standards present in the lesson. This section also provides context of where Grade 1 students should be in the progression of the mathematical practices. For example, in Module 1, Topic A, Lesson 5, students make sense of problems and persevere in solving them (MP.1) as they select a collection of objects, make a plan about how to organize and count them, carry out the plan, adjust the plan as needed, and arrive at an accurate total (LSSM 1.MD.C.4). In Module 5, Lesson 19, students look for and express regularity in repeated reasoning (MP.8) when they notice that adding multiples of ten to a

			two-digit number causes the digit in the tens place to change while the digit in the ones place remains the same (LSSM 1.NBT.C.4). By recognizing this pattern, students add more efficiently. The first half of Module 6 focuses on the attributes of shapes (LSSM 1.G.A.1, 1.G.A.2). In Module 6, Lesson 5, Which One?, students attend to precision (MP.6) as they justify their choice for answering "Which one do you want to blow in a race?" by naming the attributes of shapes. In Lesson 12, Partitioning Shapes, students construct viable arguments and critique the reasoning of others (MP.3) while working with a partner. One student writes lines on their personal whiteboard to represent either "a half" or "not a half" of a shape. The other partner identifies if the line represents half of the shape or not and explains their thinking.
	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.	**Yes**	Materials provide sufficient opportunities for students to construct viable arguments and critique the arguments of others concerning key grade-level mathematics that is detailed in the content standards. The lessons are structured with opportunities for students to engage in mathematical reasoning through discussion questions and prompts. The materials provide opportunities for students to form viable arguments and critique the arguments of others throughout the lessons. Lessons also include several routines designed to promote discourse. For example, students determine a misconception in sample

			work and then construct viable arguments to convince the teacher of the correct solution path or solution. The materials also provide opportunities for students to conduct error analyses. For example, in Module 2, Lesson 16, students count on and count back using fingers and number paths to subtract. They compare the efficiency of the strategies they used in various problems. In Module 4, Lesson 4, students complete the I Can Measure page in their student workbooks. Students notice measurement behaviors and ask questions such as "How are the cubes lined up?" and "Where do the cubes begin and end?" Students select if the markers were measured correctly or not with centimeter cubes. In Module 5, Lesson 5, students play Would You Rather with various scenarios, such as choosing between "3 boxes of 10 crayons or a pile of 20 crayons." Students construct a mathematical argument to support their choice in a discussion with a partner. In Module 6, Lesson 20, students complete a think-pair-share to discuss if they should draw a new part to the tape diagram or draw a line to partition the tape diagram. Students critique each other's plans and explain why. In Lesson 27, students use the Critique of a Flawed Response routine to engage in discussion about adding two-digit numbers.
	Required **4c)** Materials explicitly attend to the **specialized language** of mathematics.	**Yes**	Materials explicitly attend to the specialized language of mathematics. The materials use and encourage the use of accurate mathematical terminology as

			appropriate for the grade level. The Terminology Resource identifies the specialized language of mathematics that is used throughout a module. The resource lists New and Familiar terminology with definitions and descriptions from the module. Items in the New category are discipline-specific words that are introduced to students within the module. These items include the definition, description, or illustration as it is presented to students. Language Support margin notes embedded in the lessons provide guidance to teachers as they support students with the specialized language of mathematics. Each Module Overview and Module Assessment Description addresses the proper terminology for students to use as well as definitions for key terms. The sample dialogue in each lesson includes the terminology teachers should expect from their students when they answer questions or share their thinking. For example, in Module 1, Lesson 4, students draw one picture in one square until the number path represents three butterflies. The teacher supports students in understanding the term, represent, by stating “represents, or shows, three butterflies.” Students are then encouraged to use the term represent as they continue creating graphs. In Module 6, Lesson 1, students identify the prefix tri- as meaning three as they describe what a tricycle, triceratops, and triangle have in common. Students define quadrilaterals,

			pentagons, and hexagons. In Module 4, Lesson 1, students use the comparative terms of shorter, taller, shortest, and tallest to compare and order objects by length. The Language Support margin note explains that "long, longer, and longest refer to horizontal length while tall, taller, and tallest refer to vertical height." Students use visuals to understand the suffixes -er, used to compare two objects, and -est, used when comparing three or more objects. The routine, Which One Doesn't Belong? also promotes attention to the specialized language of mathematics. For example, the Which One Doesn't Belong? routine in Module 6, Topic D, Lesson 19 asks students to use precise language to compare and contrast four representations of 110.
	4d) There are teacher-directed materials that **explain the role of the practice standards** in the classroom and in students' mathematical development.	**Yes**	Materials include teacher-directed materials that explain the role of the practice standards in the classroom and in students' mathematical development. The materials provide a full explanation of the purpose and intent of the practice standards with in-lesson connections and context for instruction. Each lesson contains a section entitled "Promoting the Standards for Mathematical Practice" that links a specific practice standard to the content of the lesson. The section provides the context of the progression of the standard in the current grade level and in future learning. It provides a specific reference of the lesson activity that implements the practice standard. At the conclusion of each Module, when

			reviewing achievement descriptors and standards, mathematical practice standards are listed for each module. Within the Implementation Guide, the mathematical practices are explained and highlighted in the margin notes as they appear in specific lessons. Additionally, in the Implementation Guide, the grade level standards and practice standards are listed for educators as they are presented in all modules. In the section highlighting Lesson Facilitation, the guide describes effective delivery as "delivery that fosters student ownership and belonging. This curriculum supports this aspect by naturally presenting opportunities for students to practice the mathematical practice standards as they arise within the lessons." In Module 1, Lesson 10, students recognize 5 as a part within a total shown on a graph and with tally charts. Students demonstrate looking for and making use of structure when they find 5 within a set and use it as a part to count on (MP.7). The Promoting the Standards for Mathematical Practice margin notes provide the following questions to promote MP.7: "Why is it helpful to look for 5 in a set?" "Where do you see groups of 5?" "How do those groups help?" and "How can counting on from 5 help you to solve this problem?" In Module 3, Lesson 25, after students have developed strategies to subtract within 20, the margin note highlights how students use appropriate tools strategically (MP.5). It explains why students are encouraged to

			take time to look carefully at problems before solving them. It emphasizes that students should analyze the problems to strategically choose both physical tools (cubes, number paths, etc.) and mathematical tools (strategies).
Section II: Additional Alignment Criteria and Indicators of Superior Quality			
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. ☐ Yes ☐ No	**Required** **5a)** Materials provide all students **extensive work** with grade/course-level problems.		See EdReports for more information.
	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.		
	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.		
	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.		
6. QUALITY OF ASSESSMENTS: Materials offer assessment opportunities that genuinely measure progress and elicit direct, observable evidence of the degree to which students can	**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.		
	Required		

independently demonstrate the assessed grade-specific Louisiana Student Standards for Mathematics. ☐ Yes ☐ No	**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.		
	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.		
	6d) Materials provide 2-3 **comprehensive assessments** (interims/benchmarks) that measure student learning up to the point of administration.		
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 address students' unfinished learning in order to access grade-level work. ☐ Yes ☐ No	**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.		
	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.		
	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.		

	7d) Materials **identify prerequisite skills and concepts** for the major work of the grade/course, connected to the current on-grade/course-level work.	**Yes**	Materials identify prerequisite skills and concepts for the major work of the grade. In the Module Overview, margin notes titled, “Before This Module,” provide prerequisite skills from previous grades or earlier in the current grade students need to be successful. For an additional purchase, Equip Pre-Module Assessments are provided for each module that assist in identifying students who need work on prerequisite skills and concepts. Each item on the Pre-Module Assessment is connected to a prerequisite standard and includes a supporting activity that readdresses the content of the item. The Equip reports help identify student-specific needs and provide data in three different ways including performance by item, performance by student, and trends about overall class performance. For example, the Equip Module 1: Counting, Comparison, and Addition Overview identifies essential foundational knowledge needed to access the content within Module 1 such as, “Count to 10.” “Say one number name with each object when counting up to 10 objects.” “Recognize that each successive number is one more when counting within 10.” and “Use the last number of a count to tell how many regardless of arrangement or order counted.” In Module 4, students compare length measurements. In the Before This Module section, the materials state that students identified height and length as measurable attributes in Grade K. The section also references Grade 1,

			Module 2 where students solve comparison with difference word problems, and Module 3 where students prepare for measuring lengths with 10-centimeter sticks and cubes. In Module 6, the materials focus on using place value concepts to compare, add, and subtract. The Before This Module refers to Grade K, Module 6 where students develop place value understanding when "they come to see that teen numbers are composed of 10 ones and some more ones." In addition, the Equip Essential Foundational Knowledge guide identifies the Achievement Descriptors from prior grade levels or lessons that are assessed on the Pre-Assessments.
	7e) Materials provide guidance to help teachers **identify students** who need prerequisite work to engage successfully in core instruction, on-grade/course-level work.	**Yes**	Materials provide guidance to help teachers identify students who need prerequisite work to engage successfully in core instruction. The Implementation Guide references that Pre-Module assessments are available with Eureka Math Squared Equip to identify and support students' unfinished learning. The Pre-Assessments "focus on assessing foundational knowledge essential to the content of the upcoming lesson." The Pre-Module Assessment reports provide data to identify student-specific needs. The goal of the pre-assessment is to clearly identify which students need to engage in supporting content before, or during, grade-level instruction for each module.
	7f) Materials provide **targeted, aligned, prerequisite work** for the major work of the grade/course, directly	**Yes**	Materials provide targeted, aligned, prerequisite work for the major work of the grade directly connected to specific

	connected to specific lessons and units in the curriculum.		lessons and units in the curriculum. The materials include four Pre-Module Assessments that target foundational, prerequisite knowledge for the upcoming modules. The Pre-Module Assessment results used along with the Equip User Guide provide specific activities to provide timely remediation for the current module. Teachers are guided to analyze the results after a pre-assessment is administered. Each item in the Pre-Assessment corresponds to at least one Supporting Activity that can be used to meet the needs of students who require prerequisite work. The Equip User Guide provides information for the Supporting Activity that corresponds to each item in the Pre-Module Assessment, such as explanations of why the knowledge is foundational to the module, when specifically in the module the knowledge will be needed, and where in the module there is lesson-embedded practice with the foundational knowledge. For example, for Module 1, Item 2 of the Pre-Assessment, the Equip guide references lessons that address the foundational content such as Grade K, Module 4, Lesson 11, and Grade K, Module 5, Lessons 1-7. In addition, a Supporting Activity is provided that aligns with the foundation content for the Pre-Assessment item.
	7g) Materials provide **clear guidance and support** for teachers about the structures that allow students to appropriately address unfinished learning using prerequisite work.		See EdReports for more information.

FINAL EVALUATION ***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.			
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 Quality[5]	1. Focus on Major Work	**Yes**	Materials devote a large majority of time to the major work of the grade. Materials spend minimal time on content outside of the appropriate grade level. In assessment materials, assessment components do not make students/teachers 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 and/or two or more domains in the grade level 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

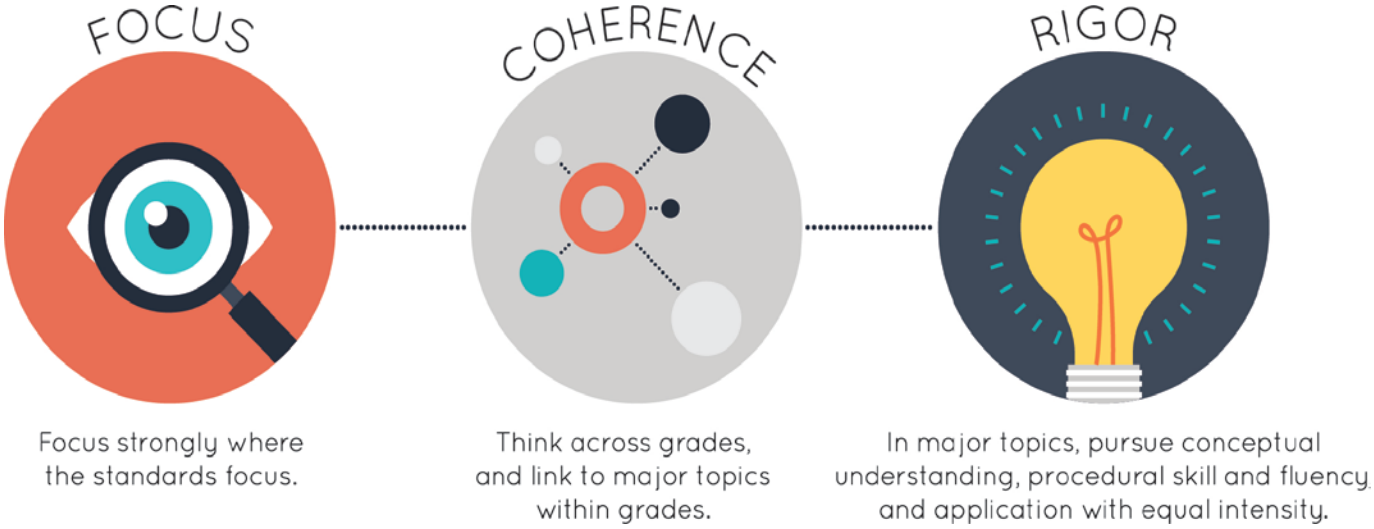
[5] Must score a "Yes" for all Non-negotiable Criteria to receive a Tier 1 or Tier 2 rating.

			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-level content and is meaningfully present throughout the materials. Materials provide sufficient opportunities for students to construct viable arguments and critique the arguments of others concerning key grade-level mathematics that is detailed in the content standards. Materials explicitly attend to the specialized language of mathematics. 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 Quality[6]	5. Alignment Criteria for Standards for Mathematical Content		See EdReports for more information.
	6. Quality of Assessments		See EdReports for more information.
	7. Additional Indicators of Quality		Materials identify prerequisite skills and concepts for the major work of the grade when applicable. Materials provide guidance to help teachers identify students who need prerequisite work to engage successfully in core instruction. Materials provide targeted, aligned, prerequisite work for the major work of the grade directly connected to specific lessons and units in the curriculum.
FINAL DECISION FOR THIS MATERIAL: **Tier 1, Exemplifies quality**			

[6] Must score a "Yes" for all Additional Criteria of Superior Quality to receive a Tier 1 rating.

Qualified for Abbreviated Review[1]

Strong mathematics instruction contains the following elements:



Title: **Eureka Math[2]**

Grade/Course: **2**

Publisher: **Great Minds PBC**

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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	

[1] Abbreviated Reviews are conducted in K-12 ELA and K-12 Math for submissions that **Meet Expectations** for Gateways 1 and Gateway 2 through EdReports. Reviewers considered these reports as they reviewed materials for alignment to Louisiana state standards and quality Non-negotiable indicators. See the full EdReports review at https://www.edreports.org/reports/overview/eureka-math2-2021.

To evaluate instructional materials for alignment with the standards and determine tiered rating, begin with **Section I: Non-negotiable Criteria**.

- Review the **required**[2] 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.

[2] **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.			
Non-negotiable **1. FOCUS ON MAJOR WORK[3]:** Students and teachers using the materials as designed devote the large majority[4] of time to the major work of the grade/course. ☒ Yes ☐ No	**Required** **1a)** Materials devote the **majority** of class time to the major work of each grade/course.	**Yes**	Materials devote a large majority of time to the major work of the grade. Of the 138 lessons, 75% of instructional lessons are spent on major work of the grade. Specifically, 66% of lessons are spent on major standards, 9% of lessons are spent on a combination of major standards and supporting/additional standards, and 25% of lessons are spent on supporting or additional standards. Four of the lessons are labeled as optional.
	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.	**Yes**	Materials spend minimal time on content outside of the appropriate grade level. In assessment materials, assessment components do not make students/teachers responsible for any topics before the grade in which they are introduced. The instructional lessons and assessments focus on Grade 2 Louisiana Student Standards for Mathematics (LSSM). The materials include lessons outside of the grade level but are labeled as foundational or optional. Foundational lessons build towards grade-level standards, and optional lessons provide extension opportunities. The content within these lessons are not included in the assessments. The lesson materials in Module 1, Topic B, Lesson 9 serve as a

[3] For more on the major work of the grade, see Focus by Grade Level.
[4] 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%.

			formative assessment and foundational lesson to build the conceptual understanding that three-digit numbers represent a number of hundreds, tens, and ones (LSSM 2.NBT.A.1). Students relate metric measurements to other representations of the same amount with prompts, such as "Beth and Kate measure the same desk. Beth says the desk is 1m, 2 cm. Kate says it is 102 cm. Who is correct?" In Module 1, Lesson 10, students reason about the relationship between the size of the unit and the number of units needed to measure. This lesson is a foundational lesson to support standard LSSM 2.MD.A.2. In Module 2, Lesson 27, students solve two-step word problems within 100. This is a foundational lesson to support standard LSSM 2.OA.A.1. The Achievement Descriptors in these lessons indicate foundational lessons. In Module 3, Lesson 19, students solve elapsed time problems. This lesson is labeled optional for extension in the Contents and after the lesson title.
Non-negotiable **2. CONSISTENT, COHERENT CONTENT** Each course's instructional materials are coherent and consistent with the content in the Standards. ☒ Yes ☐ No	**Required** **2a)** Materials connect **supporting content to major content** in meaningful ways so that focus and coherence are enhanced throughout the year.	**Yes**	Materials connect supporting content to major content in meaningful ways so that focus and coherence are enhanced throughout the year. With the exception of LSSM 2.MD.D.10, which is addressed in Module 1, Topic A, Major work is often developed prior to supporting content and is then reinforced or applied in lessons that address supporting standards. In Module 5, Topic A, students solve problems with bills and coins (LSSM 2.MD.C.8) by applying place value

			strategies and properties of operations developed in earlier modules, reinforcing major work from the Operations and Algebraic Thinking (OA) and Number and Operations in Base Ten (NBT) domains. For example, in Module 5, Topic A, Lesson 3, students solve one- and two-step word problems to find the total value of a group of coins (LSSM 2.MD.C.8, LSSM 2.OA.1, LSSM 2.NBT.B.5, and LSSM 2.NBT.B.7). Students use and draw models and solve one- and two-step problems, such as "Sal has 2 quarters, 2 dimes, and 6 nickels. He buys a ball for 76 cents. How much money does he have left?" The supporting content of counting money (LSSM 2.MD.C.8) is connected to the major fluency content of adding and subtracting within 100 (LSSM 2.NBT.B.5, and LSSM 2.NBT.B.7) which was first developed in Modules 2 and 4. In Module 6, Topic A, Lesson 1, students compare equal groups and write repeated addition equations. During the Learn section of the lesson, students use tiles on a whiteboard to represent ways to create equal groups when given 20 cookies (supporting LSSM 2.OA.C.4) and then write addition number sentences to match the whiteboard model, reinforcing major LSSM 2.OA.A.1 which was developed in Module 2 and 5.
	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.	**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, Module 6, Lesson 17 connects Cluster A

			(Represent and solve problems involving addition and subtraction) and Cluster C (Work with equal groups of objects to gain foundations for multiplication) within the Operations and Algebraic Thinking (OA) domain. Students use repeated addition (LSSM 2.OA.A.1) to solve array models represented as equal groups, column and row representations, and tape diagrams (LSSM 2.OA.C.4). The materials pair these standards within different clusters in a natural progression as students build their conceptual understanding of multiplication based on addition. Module 4 includes multiple lessons that integrate several clusters within the domain of Number and Operations in Base Ten (NBT). In Lesson 10, students choose and defend efficient solution strategies for addition (LSSM 2. NBT.B.9). On problem 1, students solve 687 + 312. Example solutions are given showing two different strategies to solve. Pam chooses to break apart and add like units giving her 900 + 90 + 9 = 999 (LSSM 2. NBT.B.5, 2. NBT.B.7). Sal adds like units vertically. Students then talk about why they chose a specific strategy (LSSM 2.NBT.B.9). The second problem shows examples of two more strategies (compensation and make a hundred) students may use to solve their work. In Module 1, Topic E, Lesson 22, the materials connect the Operations and Algebraic Thinking (OA) and Number and Operations in Base Ten (NBT) domains as students use counting strategies to solve add with change unknown word problems

			(LSSM 2.OA.A.1, 2.NBT.A.2). In the Learn section of the lesson, students use strategies to count efficiently by ones, tens, and hundreds (LSSM 2.NBT.A.2) to find the missing amount (LSSM 2.OA.A.1), such as finding the difference between 90 and 340.
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. ☒ Yes ☐ No	**Required** **3a) *Attention to Conceptual Understanding:*** Materials **develop conceptual understanding of key mathematical concepts,** especially where called for explicitly in specific content standards or cluster headings by featuring high-quality conceptual problems and discussion questions.	**Yes**	Materials develop conceptual understanding of key mathematical concepts, especially where called for explicitly in the standards. Throughout each of the modules, the materials provide activities and discussion prompts to build conceptual understanding. At the end of the lessons, students demonstrate an understanding of the concepts presented in the lesson. The materials align with the rigor expectations specified in the standards. Students develop the concepts through a combination of concrete, pictorial, and abstract experiences over time. Throughout the materials, students use visual models, multiple representations, and manipulatives to build conceptual understanding. In Module 1, Topic D, Lessons 15-19, students work to develop conceptual understanding by using a measuring tape as a number line to add and subtract efficiently and represent and solve comparison problems by using measurement contexts (LSSM 2.MD.B.6). In Lessons 15 and 16, students use measuring tape and the number line to add and subtract by getting to the next benchmark number. Students begin Lesson 15 by adding 14 to 107, first finding

			107 on the number line and then discussing different ways to add 14, such as adding 10 to 107. The discussion leads to using benchmark numbers in the jumps. Students determine that 107 needs 3 to get to 110, 10 more lands at 120, and 1 more jump lands on 121 as the total. Students have several opportunities to practice this skill. Lesson 16 transitions to subtraction using benchmark numbers. The material suggests the teacher choose specific students to share their work who show a variety of number line strategies. The questioning throughout these lessons is guided and specific to lead students through the discussion in a way that deepens their conceptual understanding of the standard. The materials provide sample student responses. As Topic D progresses, students develop a deeper understanding by working comparison problems and then comparison word problems with differences unknown. In Module 3, Lesson 8, students create composite shapes by using equal parts and name them as halves, thirds, and fourths (LSSM 2.G.A.3). The lesson materials provide students with an opportunity to demonstrate conceptual understanding of equal parts. During the Learn section, students use two same-sized triangles to make a polygon and show halves. Later in the lesson, students work with a partner to show that 4 fourths make 1 whole shape using triangles to model. The exit slip assesses students' knowledge of shapes with equal parts and what fraction

			of the whole shape the parts represent. Several lessons in Module 6 work to develop a deeper conceptual understanding of Operations and Algebraic Thinking (OA) standards (LSSM 2.OA.C.3, 2.OA.C.4). In Lesson 5, students compose arrays with rows and columns and use a repeated count to find the total. The lesson begins with students exploring a ten tile array in different formations and breaking it into smaller parts. Then, students show 3 groups of 6 which make an equal array of 18 tiles. Each step builds a deeper understanding of arrays. In the Lesson 5 debrief, students answer "Is this an array?" and explain why. The discussion question becomes more open-ended for the students in Lesson 11 when they answer, "How does decomposing an array help us find the total?" and "How does decomposing an array relate to our place value work with numbers?" The building of these lessons help students develop a deeper conceptual understanding of these standards.
	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.	**Yes**	Materials are designed so that students attain the fluencies and procedural skills required by the standards. Each lesson begins with fluency practice to support a progression of learning over time throughout the course. Students have opportunities to develop procedural skills aligned with the standards in the materials. Fluency routines are developed over time to support students in counting and calculating as they are used consistently across lessons and include

			activities such as choral response, Whiteboard Exchange, and Sprint. The implementation guide provides guiding questions and suggestions for fluency implementation. Additionally, fluency is expected as an end-of-the-year performance expectation but can be achieved at various points throughout the year. In Module 4, Topic D, lesson 16, students practice subtraction as a procedural skill by using concrete models and relate them to written recordings (LSSM 2.OA.B.2 and LSSM 2.NBT.B.7). During the Learn section of the lesson, students use number bonds to show the part-total relationship and number disks in the hundreds, tens, and ones columns to represent the total. Students make exchanges for each unit to subtract and record their work in vertical form. Students practice the procedural skill of subtraction while using the fluency skill of subtracting within 20 for each place on the chart. In Module 5, Topic B, Lesson 10, students measure an object twice using two different length units and then compare and relate measurement to the unit size (LSSM 2.MD.A.2). In the Learn section of the lesson, students measure objects, such as unsharpened pencils, using both centimeters and inches. Students discuss the difference between the number of inches and centimeters as it relates to the relative size of a unit. During the Units of Measure Race, students use a centimeter cube, one-inch tile, ruler, and yardstick to measure the

			classroom rug. Students discuss which unit is the most efficient for measuring the rug. Modules 4 and 5 build on a student's ability to “fluently add or subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction” (LSSM 2.NBT.B.5). In both modules, students learn different strategies to build their fluency. In Module 4, Lesson 5, fluency activities include Number Line Hop: Use compensation to Add Within 100 and White Board Exchange: Make the Next Ten to Add Within 100. The Learn portion of the lesson begins with Add to Make a Ten or Make a Hundred. Lesson 6 includes the same fluency activities as Lesson 5 with the practice increasing to 200. The Learn portion of the lesson works with more strategies such as Relate the Arrow Way and Open Number Line Recordings. In Lessons 12, 13, 20, 22, and 23, students continue to build on this fluency.
	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.	**Yes**	Materials are designed so that students spend sufficient time working with engaging applications. The materials provide engaging applications with frequent practice of single and multi-step problems. The progression of the modules includes opportunities within the lessons to apply conceptual understanding and procedural skills within the context of real-world problems. Students answer questions in pairs, small groups, and whole groups where they justify and explain their reasoning. Lessons include

			explicit instruction for solving word problems and student-led problem-solving opportunities. In Module 1, Topic A, lesson 4, students use the information presented in a bar graph to solve compare problems (LSSM 2.MD.D.10). In the Learn section, students use information from a table to make a bar graph that compares the number of animals on a farm. They use colored tiles to represent each animal. Students compare the number of cows to pigs by discussing questions such as “Are there more pigs than cows?” or “How many more pigs than cows are there?” Students generate their own comparison questions using the graph. Students work in pairs asking each other questions then solve using strategies and explain their thinking. In Module 5, Lesson 4, students solve the following problem: “Jade buys seafood at the market. She pays with four ten-dollar bills, five one-dollar bills, and three five-dollar bills. How much does the seafood cost?” In this real-world problem, students solve by applying their knowledge of dollar amounts and addition strategies. 10 + 10 + 10 + 10 + 1 + 1 + 1 + 1 + 1 + 5 + 5 + 5 = $40 + $5 + $15 = $60. Students then explain the strategy they used to solve. The next problem states, “Ling buys a toy train for $37. Before he buys the train, Ling has 2 twenty-dollar bills, 3 one-dollar bills, 3 five-dollar bills, and 6 ten-dollar bills. How much money does Ling have left after he buys the toy train?” This two-step real-world problem provides the opportunity

			for more discussion, justification, and modeling as students explain the steps they chose to solve (LSSM 2.MD.C.8). Later, in Module 5, Topic C, Lesson 13, students solve measurement word problems and reason about estimates (LSSM 2.MD.B.5). During the Launch, the materials reference the real-world example of Katherine Johnson's complex math problems needing exact answers, not estimations, to safely send spacecraft to space. Students repeat the discussion with another real-world example of using estimates or exact measurements when baking cookies. During the Learn section of the lesson, students calculate the distance around a garden. Students apply their calculation to then find out how many packs of fence pieces are needed to go around the entire garden if the fence is sold in packs of 10, one-foot long pieces. Students discuss in pairs how to draw number bonds and tape diagrams and then explain their solutions. In Module 6, Lessons 1 and 4, students use equal groups to solve repeated addition problems (LSSM 2.OA.A.1). Applying what they know about addition and subtraction to these real-world problems builds an understanding of multiplication and division concepts. In Lesson 1, students work to solve, "There are 20 cookies on the table. How can you make equal groups with the cookies?" Many possible answer choices provide students more opportunities to reason, justify, and model their work. In Lesson 4, students apply the

			reverse operation within the following problem: “Sal has 5 boxes of games. Each box includes 3 games. How many games does Sal have in all?” The students’ reasoning comes from their choice of strategy to solve.
	Required **3d) *Balance:*** The three aspects of **rigor** are not always treated together and are not always treated separately.	**Yes**	It is evident in the materials that the three aspects of rigor are not always treated together and are not always treated separately. The materials reflect the balance of rigor in the standards. Procedural skills and fluency appear in each lesson in the opening fluency activity. The Fluency component enables students to develop fluency with skills from all clusters. The Launch and Learn components engage students in both conceptual understanding and procedural skill and fluency. The Problem Set and Exit Ticket offer students the opportunity to independently apply their procedural skill and fluency, show their conceptual understanding, and solve applications such as word problems. In Land, students often engage in a discussion about their conceptual understanding of the student work. In Module 6, Lesson 10, students use math drawings to compare a rectangle. During Learn, students draw arrays with square tiles representing an egg carton (LSSM 2.OA.C.4, 2.G.A.2). Later in the lesson, students use procedural skills and fluency of repeated addition to make arrays and use their conceptual understanding to solve real-world problems about the number of brownies in multi-dimensional pans (LSSM

			2.OA.A.1). In Module 3, Topics A and B, students identify and categorize two-dimensional shapes then compose and decompose the shapes (LSSM 2.G.A.1). The materials build conceptual understanding and set a foundation for fractions work in later grades. Later in Module 3, Topic C, lessons focus on conceptual understanding and procedural skills and fluency aspects of rigor. Students partition circles and rectangles into halves, thirds, and fourths (LSSM 2.G.A.3). This set of lessons begins by building conceptual understanding of the standard and then moves toward a procedural skills and fluency aspect of rigor later in the module. Lesson 10 works solely with halves. In Lesson 11 students work with halves, thirds, and fourths. In Lessons 12 and 13, students practice partitioning circles and rectangles into halves, thirds, and fourths in many different ways to help build fluency. In Lesson 13, students use a square piece of paper to fold, then cut into 2 equal parts. Students notice their pieces do not all look the same and discuss. This activity builds on what students understood and then practiced in the previous lessons. Several lessons in Module 2 focus on application (LSSM 2.OA.A.1), conceptual understanding and procedural skills and fluency aspects of rigor (LSSM 2.NBT.B.7). In Lesson 7, students solve word problems by simplifying strategies for addition. In this lesson, the aspects of rigor are integrated. Students warm up with a Fluency Sprint:

			Add Within 100. In Launch, students solve, "125 students are sitting in the cafeteria. 69 students are standing in the lunch line. How many students are there in all?" (LSSM 2.OA.A.1). Students solve this real-world problem and share their reasoning and justification of how they solved it. The teacher asks students to organize their information in a drawing, such as a number bond or tape diagram. In the Learn portion of the lesson, students practice multiple strategies and use drawings to solve, then share their thinking to demonstrate their understanding.
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. ☒ Yes ☐ No	**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.	**Yes**	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. The materials support students' habits of mind based on the mathematical practices while also building conceptual understanding, developing fluency, and applying understanding. Margin notes in the teacher materials provide cues and connections to the work of the students and the Standards for Mathematical Practice. Each lesson in the modules has a section titled, "Promoting the Standards for Mathematical Practice,'' which identifies the mathematical practice standards present in the lesson. This section also provides context of where Grade 2 students should be in the progression of the mathematical practices. For example, Module 3 focuses on shapes

			and time with fraction concepts. In Lesson 3, students identify right angles in their classroom using the right angle of a sticky note (LSSM 2.G.A.1). Students attend to precision (MP.6) by placing their sticky note in the angle to verify that it is a right angle. Students evaluate the distinguishing attributes of shapes and polygons as they answer the question "Does a shape have to have right angles to be a polygon?" Later, in Lesson 7, students discuss if they agree or disagree with the following statement: "When you compose a square and 2 triangles, you can only make a larger triangle" (LSSM 2.G.A.1). Students construct viable arguments (MP.3) using tangrams to support their reasoning. In Lesson 8, students use appropriate tools strategically (MP.5) as they select their own pattern blocks to cover a trapezoid. Students use 3 triangles or 1 triangle and 1 rhombus to make the trapezoid (LSSM 2.G.A.3). In Module 1, Lesson 29, students look for and express regularity in repeated reasoning (MP.8). In the Launch section, students chorally count from 776 to 800 while the teacher records the numbers in columns where the numbers with 1 in the ones place is the first column and 0 in the ones place is the last column (LSSM 2.NBT.A.2). Students notice the pattern that the number in the ones place in each column is the same and it increases by 1 each column.
	Required **4b)** Materials provide sufficient opportunities for students to **construct viable arguments and critique the**	**Yes**	Materials provide sufficient opportunities for students to construct viable arguments and critique the arguments of others

	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.		concerning key grade-level mathematics that is detailed in the content standards. The lessons are structured with opportunities for students to engage in mathematical reasoning through discussion questions and prompts. The materials provide opportunities for students to form viable arguments and critique the arguments of others throughout the lessons. Lessons also include several routines designed to promote discourse. For example, students determine a misconception in sample work and then construct viable arguments to convince the teacher of the correct solution path or solution. The materials also provide opportunities for students to conduct error analyses. For example, in Module 1, Lesson 11, students estimate the length of a glue stick. Students explain why certain measurement estimates are unreasonable for a glue stick based on the relative size of a centimeter which is about the size of their pinky finger. In Module 4, Lesson 19, students solve 703-234. They draw 703 in a place value drawing with 7 circles in the hundreds place, 0 in the tens place, and 3 in the ones place. Students then work to Rename Across Zero until each place has enough to subtract from. Students then answer the following questions: “Why do you prefer the number of steps you used for decomposition? Which method is the most efficient? Which method may lead to more errors? Why?” In Module 5, Lesson 14, during the Learn section of the lesson,

			students use the Critique a Flawed Response routine to address a common misconception when solving two-step problems. Students identify the error that the length of the green rocket (57 inches minus 25 inches) is not the difference between the two rockets, which is the solution to the problem. In Module 6, Lesson 12, students compare and analyze their work with their partner's work. In the lesson, students compose different arrays with the same total of 16 squares. Students may make 4 rows of 4, 2 rows of 8, 4 columns of 4, or 8 columns of 2. Then they repeat the process with 24 squares. Students compare their array with their partner's array. They analyze the differences and justify the reasoning for the array they chose to create.
	Required **4c)** Materials explicitly attend to the **specialized language** of mathematics.	**Yes**	Materials explicitly attend to the specialized language of mathematics. The materials use and encourage the use of accurate mathematical terminology as appropriate for the grade level. The Terminology Resource identifies the specialized language of mathematics that is used throughout a module. The resource lists New and Familiar terminology with definitions and descriptions from the module. Items in the New category are discipline-specific words that are introduced to students within the module. These items include the definition, description, or illustration as it is presented to students. Language Support margin notes embedded in the lessons provide guidance to teachers as

			they support students with the specialized language of mathematics. Each Module Overview and Module Assessment Description addresses the proper terminology for students to use as well as definitions for key terms. The sample dialogue in each lesson includes the terminology teachers should expect from their students when they answer questions or share their thinking. In Module 1, Lesson 1, teacher guidance suggests making a terminology chart to record math terms. Throughout the lesson, teacher guidance notes which specific terms should be added to the chart. A Language Support box in the margin suggests adding images to the chart of a table and picture graphs that are labeled. In Module 2, Lesson 20, the Language Support box suggests making sentence frames to support students in using the right terminology, including: "I think you ___ do (do not) need to unbundle because ___." and "I think I can rename 52 as ___." In Module 5, Lesson 8, the materials introduce an inch as a new unit of measurement with an inch-tile and compare it to a centimeter-tile. Students iterate an inch-tile to create a 12-inch ruler. The materials introduce a foot as 12 inches. Students discuss the multiple meanings of foot and that the plural of a foot is feet. In Module 6, Lesson 5, students organize tiles into arrays and describe the characteristics of an array. After the students arrange the tiles into equal groups, the teacher identifies the

			model as an array and asks what students notice about an array. After the discussion, the teacher states that an array is “a rectangular group or arrangement of objects. It is composed of equal groups organized into rows and columns.” The materials connect the terms row and column to pictures of rows in auditoriums and columns of the buildings.
	4d) There are teacher-directed materials that **explain the role of the practice standards** in the classroom and in students’ mathematical development.	**Yes**	Materials include teacher-directed materials that explain the role of the practice standards in the classroom and in students’ mathematical development. The materials provide a full explanation of the purpose and intent of the practice standards with in-lesson connections and context for instruction. Each lesson contains a section entitled “Promoting the Standards for Mathematical Practice” that links a specific practice standard to the content of the lesson. The section provides the context of the progression of the standard in the current grade level and in future learning. It provides a specific reference of the lesson activity that implements the practice standard. At the conclusion of each Module, when reviewing achievement descriptors and standards, mathematical practice standards are listed for each module. Within the Implementation Guide, the mathematical practices are explained and highlighted in the margin notes as they appear in specific lessons. Additionally, in the Implementation Guide, the grade-level standards and practice standards are

			listed for educators as they are presented in all modules. In the section highlighting Lesson Facilitation, the guide describes effective delivery as “delivery that fosters student ownership and belonging. This curriculum supports this aspect by naturally presenting opportunities for students to practice the mathematical practice standards as they arise within the lessons.” In Module 5, Lesson 10, the margin notes explain how students “communicate with precision” (MP.6) when they express the length of an object by using different units and can justify why the unit makes a difference to the reported length.” The material also provides specific questions to promote the MP standard, such as “Which units, inches or centimeters, are the most efficient to express the length of larger objects?” and “Why might you choose to use centimeters to measure an object if it would take fewer inches?” In Module 1, Lesson 11, the Promoting the Standards for Mathematical Practices margin notes state that “identifying answers that do not make sense and explaining why builds students toward the critiquing the reasoning of others.” In Module 2, Lesson 4 the margin notes explain how students “construct viable arguments” (MP.3) when they Take a Stand for the category that they think describes a square and then share their reasoning. Specific questions to promote the standard follow, such as: “Why did you choose the category that you did?” and “Would you like to change

			your mind and join a different group? If so, what's your reasoning?"
Section II: Additional Alignment Criteria and Indicators of Superior Quality			
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. ☐ Yes ☐ No	**Required** **5a)** Materials provide all students **extensive work** with grade/course-level problems.		See EdReports for more information.
	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.		
	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.		
	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.		
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.	**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.		
	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		

☐ Yes ☐ No	modeling in real world context. Assessment items require students to produce answers and solutions, arguments, explanations, and models, in a grade/course-appropriate way.		
	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.		
	6d) Materials provide 2-3 **comprehensive assessments** (interims/benchmarks) that measure student learning up to the point of administration.		
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 address students' unfinished learning in order to access grade-level work. ☐ Yes ☐ No	**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.		
	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.		
	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.		
	7d) Materials **identify prerequisite skills and concepts** for the major work of the grade/course, connected to the current on-grade/course-level work.	**Yes**	Materials identify prerequisite skills and concepts for the major work of the grade. In the Module Overview, margin notes titled, "Before This Module," provide

			prerequisite skills from previous grades or earlier in the current grade students need to be successful. For an additional purchase, Equip Pre-Module Assessments are provided for each module that assist in identifying students who need work on prerequisite skills and concepts. Each item on the Pre-Module Assessment is connected to a prerequisite standard and includes a supporting activity that readdresses the content of the item. The Equip reports help identify student-specific needs and provide data in three different ways including performance by item, performance by student, and trends about overall class performance. For example, the Equip Module 1: Place Value Concepts Through Metric Measurement and Data - Place Value, Counting, and Comparing Within 1,000 Overview identifies essential foundational knowledge needed to access the content within Module 1 such as, “Measure the length of an object and write the length as a whole number of centimeters.” “Represent and solve word problems within 20 with grade 1 addition and subtraction comparison problem types involving represented lengths.” and “Write a missing number in a sequence within 120.” In Module 1, students develop place value concepts through metric measurement and data and counting and comparing within 1,000. In the Before This Module section, the materials reference Grade 1, Module 1 where students “collect data by answering

			questions, sorting sets, and making observations", and Grade 1 Module 4, where students "explore indirect comparison, whereby the length of one object is used to compare two other objects, and they order objects by length." In Module 2, the Before This Module section references solving complex problems within 20, including an unknown start from Grade 1 content. Students extend their use of addition strategies in Grade 2. In Module 3, the Before This Module section states that in Grade 1, students describe and name two-dimensional shapes by defining their attributes, a prerequisite to Grade 2 geometry content. In addition, the Essential Foundational Knowledge guide identifies the Achievement Descriptors from prior grade levels or lessons that are assessed on the Pre-Assessments.
	7e) Materials provide guidance to help teachers **identify students** who need prerequisite work to engage successfully in core instruction, on-grade/course-level work.	**Yes**	Materials provide guidance to help teachers identify students who need prerequisite work to engage successfully in core instruction. The Implementation Guide references that Pre-Module assessments are available with Eureka Math Squared Equip to identify and support students' unfinished learning. The Pre-Assessments "focus on assessing foundational knowledge essential to the content of the upcoming lesson." The Pre-Module Assessment reports provide data to identify student-specific needs. The goal of the pre-assessment is to clearly identify which students need to engage in

			supporting content before, or during, grade-level instruction for each module.
	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.	**Yes**	Materials provide targeted, aligned, prerequisite work for the major work of the grade directly connected to specific lessons and units in the curriculum. The materials include four Pre-Module Assessments that target foundational, prerequisite knowledge for the upcoming modules. The Pre-Module Assessment results used along with the Equip User Guide provide specific activities to provide timely remediation for the current module. Teachers are guided to analyze the results after a pre-assessment is administered. Each item in the Pre-Assessment corresponds to at least one Supporting Activity that can be used to meet the needs of students who require prerequisite work. The Equip User Guide provides information for the Supporting Activity that corresponds to each item in the Pre-Module Assessment, such as explanations of why the knowledge is foundational to the module, when specifically in the module the knowledge will be needed, and where in the module there is lesson-embedded practice with the foundational knowledge. For example, for Module 1, Item 1 of the Pre-Assessment, the Equip guide references Grade 1, Module 4, Lesson 4 as foundational content. In addition, a Supporting Activity is provided that aligns with the foundation content for the Pre-Assessment item.

	7g) Materials provide **clear guidance and support** for teachers about the structures that allow students to appropriately address unfinished learning using prerequisite work.		See EdReports for more information.
FINAL EVALUATION ***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.			
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 Quality[5]	1. Focus on Major Work	**Yes**	Materials devote a large majority of time to the major work of the grade. Materials spend minimal time on content outside of the appropriate grade level. In assessment materials, assessment components do not make students/teachers 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 and/or two or more domains in the grade level 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

[5] Must score a "Yes" for all Non-negotiable Criteria to receive a Tier 1 or Tier 2 rating.

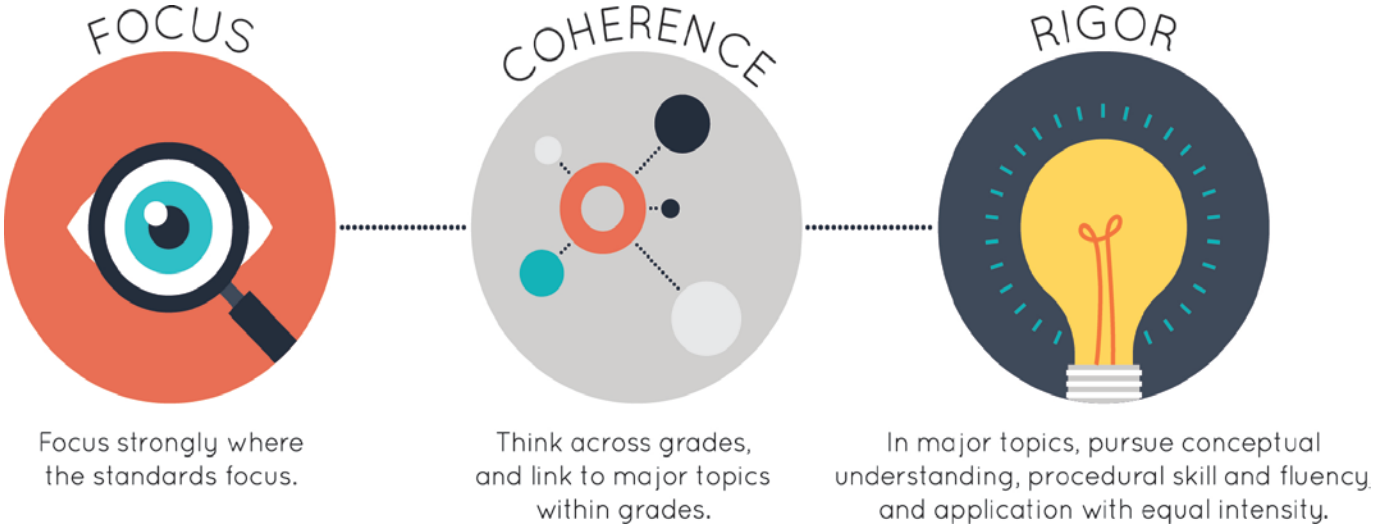
			working with engaging applications. It is evident in the materials that the three aspects of rigor are not always treated together and are not always treated separately.
	4. Focus and Coherence via Practice Standards	**Yes**	Materials attend to the full meaning of each practice standard. Each practice standard is connected to grade-level content and is meaningfully present throughout the materials. Materials provide sufficient opportunities for students to construct viable arguments and critique the arguments of others concerning key grade-level mathematics that is detailed in the content standards. Materials explicitly attend to the specialized language of mathematics. 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 Quality[6]	5. Alignment Criteria for Standards for Mathematical Content		See EdReports for more information.
	6. Quality of Assessments		See EdReports for more information.
	7. Additional Indicators of Quality		Materials identify prerequisite skills and concepts for the major work of the grade when applicable. Materials provide guidance to help teachers identify students who need prerequisite work to engage successfully in core instruction. Materials provide targeted, aligned, prerequisite work for the major work of the grade directly connected to specific lessons and units in the curriculum.

[6] Must score a "Yes" for all Additional Criteria of Superior Quality to receive a Tier 1 rating.

FINAL DECISION FOR THIS MATERIAL: **Tier 1, Exemplifies quality**

Qualified for Abbreviated Review[1]

Strong mathematics instruction contains the following elements:



Title: **Eureka Math[2]**

Grade/Course: **3**

Publisher: **Great Minds PBC**

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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	

[1] Abbreviated Reviews are conducted in K-12 ELA and K-12 Math for submissions that **Meet Expectations** for Gateways 1 and Gateway 2 through EdReports. Reviewers considered these reports as they reviewed materials for alignment to Louisiana state standards and quality Non-negotiable indicators. See the full EdReports review at https://www.edreports.org/reports/overview/eureka-math2-2021.

To evaluate instructional materials for alignment with the standards and determine tiered rating, begin with **Section I: Non-negotiable Criteria**.

- Review the **required**[2] 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.

[2] **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.			
Non-negotiable **1. FOCUS ON MAJOR WORK[3]:** Students and teachers using the materials as designed devote the large majority[4] of time to the major work of the grade/course. ☒ Yes ☐ No	**Required** **1a)** Materials devote the **majority** of class time to the major work of each grade/course.	**Yes**	Materials devote a large majority of time to the major work of the grade. Of the 141 instructional, 73% are spent on major work of the grade. Specifically, 61% of lessons are spent on major standards, 12% of lessons are spent on a combination of major standards and supporting/additional standards, 24% of lessons are spent on supporting or additional standards, and 3% of lessons are labeled as optional or foundational work.
	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.	**Yes**	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 they are introduced. Lessons that address content outside of the grade level are clearly marked as optional. In addition, the materials include a Louisiana Teacher Alignment Guide that provides modifications to lessons, lesson components, and assessment items to ensure full alignment to the Louisiana Student Standards for Mathematics (LSSM). The guide indicates four lessons to omit completely since they address

[3] For more on the major work of the grade, see Focus by Grade Level.
[4] 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%.

			content outside of the grade level. In addition, the guide includes additional lessons to meet the full intent of the standards. In addition, guidance is provided to omit certain Achievement Descriptors and assessment items that do not align with the Grade 3 LSSM. For example, Module 4 includes 19 lessons. In the Louisiana Teacher Alignment Guide, Lessons 14 and 15 are labeled omit because the lessons call for learning outside of Grade 3 LSSM. Module 2 includes 25 lessons and none of the lessons are labeled omit as all lessons and assessment items align to the LSSM. Guidance in the Louisiana Teacher Alignment Guide, Benchmark 2, Session 1 states to "omit items 2 and 8." At times content from previous grade levels is addressed, but only to connect prior knowledge to grade-level content. For example, Module 1, Lesson 1 reviews second grade content (2.NBT.A.2) but clearly states that the lesson is foundational for Grade 3. In addition, the Grade 2 standard is not assessed in the Module 1 Assessment.
Non-negotiable **2. CONSISTENT, COHERENT CONTENT** Each course's instructional materials are coherent and consistent with the content in the Standards. ☒ Yes ☐ No	**Required** **2a)** Materials connect **supporting content to major content** in meaningful ways so that focus and coherence are enhanced throughout the year.	**Yes**	Materials connect supporting content to major content in meaningful ways so that focus and coherence are enhanced throughout the year. Materials are structured so that lessons that address major work precede lessons that address supporting work allowing major work of the grade to be applied and reinforced throughout the year. The Achievement Descriptors and Standards section located

			at the beginning of each lesson note the connections made among other standards within the lesson. In Module 2, Lesson 13, students draw a scaled bar graph and solve one- and two-step word problems using the information from the graphs (LSSM 3.MD.B.3). During the Learn portion of the lesson, students use bar graphs to solve two-step word problems (LSSM 3.OA.D.8), which is first developed in Module 1. In Module 4, Lesson 5, students explore attributes of polygons, specifically squares, rectangles, and trapezoids, and tile polygons with squares and half-squares to find the area, connecting supporting LSSM 3.G.A.1 to major LSSM 3.MD.C.6, which is first developed in the prior lessons and then reinforced in Lesson 5. Module 6, Topic D, students "synthesize what they have learned throughout the year to connect concepts related to whole number computation, place, value, fractions, and measurement data." For example, in Lessons 20 and21, students organize data in a table and create a line plots and partition number line scales into quarter-inch intervals, connecting supporting LSSM 3.MD.B.4 to LSSM 3.NF.A.2, which is first developed in Module 5.
	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.	**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. Various lessons throughout the materials include standards from multiple clusters and/or

			domains. Module 1 exemplifies the natural and meaningful connection of Operations and Algebraic clusters of A, B, C, and D as students move from representing and solving problems involving multiplication and division to then understanding the properties of those operations, becoming more fluent within 100 and applying their knowledge by solving two-step word problems. This gradual connection begins in Lesson 8 and highlights the properties of operations in Lessons 10-14. For example, in Module 1, Lesson 10 students interpret products of whole numbers as the total number of objects and apply the commutative property as a strategy to multiplication problems connecting clusters A (Represent and solve problems involving multiplication and division) and B (Understand properties of multiplication and the relationship between multiplication and division) of the Operations and Algebraic Thinking (OA) domain. Within Lesson 10, Problem Set, students encounter an array in which they apply the commutative property to create equations that represent the total number of objects, resulting in 2 x 8 = 16 and 8 x 2 = 16 (LSSM 3.OA.A.1 and 3.OA.B.5). Module 3 extends this coherence with the same clusters being connected, accenting a strong focus on cluster B (Understanding properties of multiplication and the relationship between multiplication and division) and the fluency expectation of cluster C (Multiply and divide within 100).

			Module 3, Lesson 21, connects the Operations and Algebraic Thinking domains (OA) and the Number and Operations in Base Ten (NBT) domains as students multiply one-digit whole numbers by multiples of 10 in the range 10–90 using strategies based on place value and properties of operations (LSSM 3.NBT.A.3) and apply the distributive property to decompose numbers in the problem (LSSM 3.OA.B.5). Specifically, during the Launch session, students begin the session with the problem 3 x 60. Students decompose the expression to 3 x (6 x 10), then apply the problem to a place value chart to solve the problem.
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. ☒ Yes ☐ No	**Required** **3a)** ***Attention to Conceptual Understanding:*** Materials **develop conceptual understanding of key mathematical concepts,** especially where called for explicitly in specific content standards or cluster headings by featuring high-quality conceptual problems and discussion questions.	**Yes**	Materials develop conceptual understanding of key mathematical concepts, especially where called for explicitly in the standards. Throughout each of the modules, the materials provide activities and discussion prompts to build conceptual understanding. At the end of the lessons, students demonstrate an understanding of the concepts presented in the lesson. The materials align with the rigor expectations specified in the standards. Students develop the concepts through a combination of concrete, pictorial, and abstract experiences over time. Throughout the materials, students use visual models, multiple representations, and manipulatives to build conceptual understanding. In Module 1, Lesson 2, students build understanding of multiplication as they find the total

			number of equal groups using strategies of skip-counting and repeated addition then describe the groups in unit form and write related multiplication equations confirming the terms multiply and multiplication. Over the course of Lessons 4 and 5, students write multiplication equations to represent the equal groups and arrays. In Lesson 6, students demonstrate understanding of the concept of multiplication as equal groups and the ability to connect a symbolic representation to real-world situations in word problems within the lesson. For example, students solve “A Roller coaster has 10 cars. There are 3 people in each car. How many people are on the roller coaster?” (LSSM 3.OA.A.1). In Module 1, Topic D, students extend their understanding of the meaning of the equal sign and develop conceptual understanding of the inverse relationship of multiplication and division (LSSM 3.OA.A.4, 3.OA.B.6). This conceptual development continues through Module 1 as students explore properties of multiplication and division (LSSM 3.OA.B.5) and extend the work utilizing more complex strategies and units of 6, 7, 8, 9, 0, and 1 in Module 3. In Module 4, students begin to experience a progression from concrete manipulatives to representational images to the abstract formula of area while gaining a deep conceptual understanding of measurement and its connection to multiplication (LSSM 3.MD.C.5). In Lessons

			1-3, students explore the attributes of regular polygons and tile those polygons to find the area, answering questions that compare the area of one polygon to another in a given set. In Module 5, students develop conceptual understanding of fractions as numbers as they represent fractions on a number line, define the interval that is the whole, and partition it into equal parts. For example, in Lesson 11, students locate fractions on a number line using fraction tiles. In Lesson 12, students understand the fractional size compared to the fraction value and its location on a number line when solving "Deepa cleans her room for 1 hour. After each ¼ hour, Deepa starts to clean a different part of her room. How many different parts of her room does Deepa clean during her 1-hour cleaning time? What fraction of the whole cleaning time has Deepa completed when she gets to the point on the number line shown by the star? At ¾ hours, Deepa starts to clean her closet. Label the number line to show when Deepa starts to clean her closet" (LSSM 3.NF.A.2.a, 3.NF.A.2.b).
	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	**Yes**	Materials are designed so that students attain the fluencies and procedural skills required by the standards. Materials are designed so that students attain the fluencies and procedural skills required by the standards. Each lesson begins with fluency practice to support a progression of learning over time throughout the course. Students have opportunities to develop procedural skills aligned with the

	algebraic operations is provided in order for students to have the foundation for later work in algebra.		standards in the materials. According to the Implementation Guide, “Fluency provides distributed practice with previously learned material. It is designed to prepare students for new learning by activating prior knowledge and bridging small learning gaps. Fluency routines are developed over time to support students in counting and calculating as they are used consistently across lessons and include activities such as choral response, Whiteboard Exchange, and Sprint. The implementation guide provides guiding questions and suggestions for fluency implementation. Additionally, fluency is expected as an end-of-the-year performance expectation but can be achieved at various points throughout the year. As students move through Module 1, they progress from conceptual understanding of multiplication, division and their properties of operations to the required fluency of knowing the products and quotients within 100 and continue to practice throughout the remaining modules (LSSM 3.OA.C.7). The fluency skill is continuously built upon in Module 1 as seen in Lesson 11 when students group/skip count “the math way” by fives and fours and in Lesson 16 as students “count the math way” by tens and fours, and so on. Within Module 1, Lessons 19 and 20, students use the distributive property to fluently multiply problems by breaking apart factors into known facts. Students are given more opportunities to refine LSSM 3.OA.C.7 in Module 3, Lesson

			2 as students “count the math way” by threes and show fluency with threes in Lesson 16 in the form of a Sprint (multiply and divide by 3). The materials also provide opportunities to fluently add and subtract within 1000 (LSSM 3.NBT.A.2), building on Grade 2 multi-digit addition and subtraction, using strategies and algorithms. In Module 1, Lesson 21 Fluency, students add or subtract within 1000 solving 217 + 12; 217 + 312; 14 + 15; 29 - 15; 314 + 315; 529 - 315; 36 + 53; 89-36; 436 + 252; and 689 - 252 on whiteboards. This is also evident in Module 2 as students add measurements using the standard algorithm to compose larger units twice in Lesson 21. The materials provide multiple opportunities to build fluency with multiplying one-digit whole numbers by multiples of ten (LSSM 3.NBT.A.3). For example, in Module 2, Lesson 14, Fluency, students multiply one-digit factors by 10, and, in Module 5, Lesson 14, students find hidden factors as they multiply a one digit-number by a multiple of ten.
	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	**Yes**	Materials are designed so that students spend sufficient time working with engaging applications. The materials provide practice with single- and multi-step contextual problems that develop the mathematics for the grade and engage students in problem solving. The progression of the modules includes opportunities within the lessons to apply conceptual understanding and procedural skills within the context of real-world

	expectations for multi-step and real-world problems are explicit.		problems. Students answer questions in pairs, small groups, and whole groups where they justify and explain their reasoning. For example, in Module 2, Lesson 2, students use all four operations to solve one-step word problems involving weight as they weigh two classroom objects by using a digital scale (LSSM 3.MD.A.2). In Module 3, Lesson 2, students apply knowledge of division to solve the following problem: "There are 48 teacher mailboxes in the office. The mailboxes are in 6 equal rows. How many mailboxes are in each row?" Students draw a tape diagram and then write a division equation to solve the word problem (LSSM 3.OA.A.3). In the Louisiana Alignment Teacher's Guide, Module 6, Lessons 7.1 and 7.2 address LSSM 3.MD.E.9 as students solve problems about money. Specifically, within Lesson 7.1, students solve the following problem: "Miss Wong has 3 pennies, 1 dime, 1 quarter, and 6 nickels. She finds 2 more dimes, 1 more nickel, and two more pennies. Now she has exactly enough to buy an ice cream cone. How much does an ice cream cone cost?" In Lesson 7.2, Problem Set, students solve the following multi-step problem: "Luke wants to buy a video gaming system that costs $449. He has $ 175. His mom gives him $148. How much more money does Luke need to buy the video gaming system?"
	Required **3d)** ***Balance:*** The three aspects of **rigor** are not always treated together and are not always treated separately.	**Yes**	It is evident in the materials that the three aspects of rigor are not always treated together and are not always treated

			separately. The materials reflect the balance of rigor in the standards. The structure of the materials help students develop the concepts and skills necessary to build and apply math knowledge. The Lessons are structured into sections titled Fluency, Launch, Learn, and Land. The three components of rigor are found within different sections of the lesson, and the lessons align with the expectations of rigor within each standard. Procedural skills and fluency appear in each lesson in the opening Fluency activity. The Fluency component enables students to develop fluency with skills from all clusters. The Launch and Learn components engage students in both conceptual understanding and procedural skill and fluency. The Problem Set and Exit Ticket offer students the opportunity to independently apply their procedural skill and fluency, show their conceptual understanding, and solve applications such as word problems. In Land, students often engage in a discussion about their conceptual understanding of the student work. In Module 2, Lesson 1, Fluency, students write a division equation and related multiplication equation to describe equal groups pictures (LSSM 3.OA.C.7). In Module 2, Lesson 3, all three components of rigor are integrated into the lesson. Within the lesson, students build conceptual understanding as they weigh items on a digital scale and then procedurally add to find the total weight. Students apply conceptual understanding

			and procedural skill as they solve one-step word problems such as “Mrs. Smith put 5 copies of the same book on a scale. How much does each book weigh?” Students use the picture of the scale and information from the problem to solve (LSSM 3.MD.A.2). Module 1, Lesson 22, students represent and solve two-step problems using the properties of multiplication. Students apply knowledge of the distributive property of multiplication as they break apart the number of groups from 6 to 5 and 1 to multiply by 9 (LSSM 3.OA.C.7). In Module 4, Lesson 11, students solve real-world problems involving areas of rectangles (LSSM 3.MD.C.7b) by drawing rectangular arrays of squares, determine the number of squares in each row, and then write a multiplication sentence to represent the number in each row by the number of rows (LSSM 3.MD.C.7b). In Module 1, the three aspects of rigor are found as students begin to explore multiplication and division along with their properties, and are also given fluencies to hone the skills of group/skip counting “the math way” in Lessons 3 and 6 Fluency section. The application in understanding multiplication and division is found as students access the lessons in Module 1, Topic E.
Non-negotiable **4. FOCUS AND COHERENCE VIA PRACTICE STANDARDS:** Aligned materials make meaningful and purposeful connections that	**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	**Yes**	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. The materials

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. ☒ Yes ☐ No	present throughout the year in assignments, activities, and/or problems.		support students' habits of mind based on the mathematical practices while also building conceptual understanding, developing fluency, and applying understanding. Margin notes in the teacher materials provide cues and connections to the work of the students and the Standards for Mathematical Practice. Each lesson in the modules has a section titled, "Promoting the Standards for Mathematical Practice," which identifies the mathematical practice standards present in the lesson. This section also provides context of where Grade 3 students should be in the progression of the mathematical practices. For example, in Module 1, Lesson 4, students attend to precision (MP.6) in the Learn section as they describe and discuss how their array models are represented in the multiplication equations (LSSM 3.OA.A.1). Students answer the following questions as they communicate precisely: "What do the 6, the 5, and the symbol × mean in the expression 6 × 5?" "What are the 6 and the 5 called in the equation 6 × 5 = 30?" and "What is the 30 called in the equation 6 × 5 = 30?" In Module 1, Lesson 8, students make sense of problems and persevere in problem solving (MP.1) as they answer the following questions: "What are some things you could try to start solving the problem?" and "Does your drawing make sense with the problem?" These questions connect to the content standards as students build conceptual understanding around the

			Operations and Algebraic Thinking (OA) standards for multiplication. In Module 2, Lesson 9, Learn, students reason quantitatively and abstractly (MP.2) as they round using a vertical number line (LSSM 3.NBT.A.1). Students answer the following questions as they discuss a graduated cylinder that has 73 milliliters of water: "How does the graduated cylinder help you see what numbers to mark on your number line?" and "What does your number line tell you about the amount of water in the graduated cylinder?" In Module 4, Lesson 9, Learn, students choose a strategy (MP.5) to find the length of an unknown side length (LSSM 3.MD.C.7.b). Students answer the following questions as they discuss choosing the appropriate tool, "Which strategy would be most efficient to find the unknown side length? Why?" and "Why did you choose to draw all the unit squares? Did that work well?" In Module 5, Lesson 4, students look for and make use of structure (MP.7) as they continue to build an understanding of fractions as a whole composed of fractional units by answering the following questions, "How are wholes and fourths related?" and "How is working with fractional units similar to working with place value units such as ones and tens?" (LSSM 3.G.A.2).
	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	**Yes**	Materials provide sufficient opportunities for students to construct viable arguments and critique the arguments of others concerning key grade-level mathematics that is detailed in the content standards.

	(cf. MP.3). Materials engage students in problem solving as a form of argument, attending thoroughly to places in the standards that explicitly set expectations for multi-step problems.		The lessons are structured with opportunities for students to engage in mathematical reasoning through discussion questions and prompts. The materials provide opportunities for students to form viable arguments and critique the arguments of others throughout the lessons. Lessons also include several routines designed to promote discourse. For example, students determine a misconception in sample work and then construct viable arguments to convince the teacher of the correct solution path or solution. The materials also provide opportunities for students to conduct error analyses. In Module 3, Lesson 5, students answer the following questions: “How did you and your partner break apart 6? Explain why you broke apart 6 the way you did.” In Break Apart and Distribute 6, students critique the work and engage in mathematical reasoning through justification. In Module 4, Lesson 2 Problem Set, students solve the following problem: “Mia says that shapes A, B, and C all have different areas because they all look different. Is she correct? Explain.” Students construct an argument that Mia is incorrect because A and C both have an area of 12 square tiles. In Module 2, Lesson 15, students analyze sample work and discuss what makes it valid and why. The students answer the following questions: “What parts of Liz’s strategy do you question? Why?” and “Why does Liz’s strategy work? Convince your partner.” In Module 2, Lesson 24,

			students discuss and defend whether the given statement is always, sometimes, or never true. Students answer the following questions: “Can you find a problem where the standard algorithm is not the best way to subtract?” and “When would the standard algorithm be the best way to subtract?” In Module 5, Lesson 9, students refine explanations about why wholes need to be the same size for fractions to be compared, answering, “Is your solution a guess, or do you know for sure?” “How do you know for sure?” “What questions can you ask your partner to make sure you understand their thinking?” and “Can you think of a situation where it would be true that 1 half is the same as 1 half?”
	Required **4c)** Materials explicitly attend to the **specialized language** of mathematics.	**Yes**	Materials explicitly attend to the specialized language of mathematics. The materials use and encourage the use of accurate mathematical terminology as appropriate for the grade level. The Terminology Resource identifies the specialized language of mathematics that is used throughout a module. The resource lists New and Familiar terminology with definitions and descriptions from the module. Items in the New category are discipline-specific words that are introduced to students within the module. These items include the definition, description, or illustration as it is presented to students. Language Support margin notes embedded in the lessons provide guidance to teachers as they support students with the specialized language of mathematics. Each Module

			Overview and Module Assessment Description addresses the proper terminology for students to use as well as definitions for key terms. The sample dialogue in each lesson includes the terminology teachers should expect from their students when they answer questions or share their thinking. In Module 1, Lesson 10, students learn about the commutative property of multiplication. To explore this concept prior to identifying the term, students create and rotate arrays to represent related multiplication equations, such as 5 x 2 = 10 and 2 x 5 = 10. Students learn the formal definition of the term and use the property as they solve: “Pablo arranges his grapes into 7 rows. Each row has 2 grapes. How many total grapes does Pablo have? Use the commutative property to write a different multiplication equation for the array.” As students move into understanding the distributive property, they learn the mathematical terminology of parentheses and use them in their solutions of Module 1, Lesson 12, and explain their use when answering, “How do parentheses show the smaller arrays within a larger array?” This specialized language continues throughout the modules such as in Module 5, Lesson 1 as students are introduced to fractional units. In Module 4, students learn the definitions of the New terms: area, area model, length, side length, square centimeter, square inch, square units, unit square, and width. The terms array,

			attribute, break apart and distribute, line plot, parallel, polygon, quadrilateral, rectangle, right angle, square, and trapezoid are listed in the Familiar section. Observe is identified in the Academic section. Within the Teaching Guide for Module 5, Lesson 7, a box titled Language Support is found in the Fraction Art section of the lesson. In the box, it states, "Consider supporting students in using the terms fractional unit, unit fraction, and fraction form. Throughout the lesson, invite students to point or gesture to indicate where each term is represented in the model thereby encouraging the use of accurate mathematical terminology when students decompose a rectangular strip into parts."
	4d) There are teacher-directed materials that **explain the role of the practice standards** in the classroom and in students' mathematical development.	**Yes**	Materials include teacher-directed materials that explain the role of the practice standards in the classroom and in students' mathematical development. The materials provide a full explanation of the purpose and intent of the practice standards with in-lesson connections and context for instruction. Each lesson contains a section entitled "Promoting the Standards for Mathematical Practice" that links a specific practice standard to the content of the lesson. The section provides the context of the progression of the standard in the current grade level and in future learning. It provides a specific reference of the lesson activity that implements the practice standard. At the conclusion of each Module, when reviewing achievement descriptors and

			standards, mathematical practice standards are listed for each module. Within the Implementation Guide, the mathematical practices are explained and highlighted in the margin notes as they appear in specific lessons. Additionally, in the Implementation Guide, the grade level standards and practice standards are listed for educators as they are presented in all modules. In the section highlighting Lesson Facilitation, the guide describes effective delivery as "delivery that fosters student ownership and belonging. This curriculum supports this aspect by naturally presenting opportunities for students to practice the mathematical practice standards as they arise within the lessons." In Module 1, Lesson 3, the Promoting the Standards for Mathematical Practice states, "Students reason quantitatively and abstractly (MP2) as they discuss the array of cubes and corresponding multiplication, using two quantitative sentence frames (more concrete descriptions of the cubes) and two abstract sentence frames. Ask the following questions to promote MP2: What does the product you found tell you about the cubes? What do the numbers in the first sentence tell you about the numbers in the first sentence frame?" Later in Lesson 5, the Promoting the Standards for Mathematical Practice states, "Students model with mathematics (MP4) as they iteratively create a drawing and equation to represent and solve a word problem (i.e., the Read–Draw–Write

			process). Ask the following questions to promote MP4: What can you draw to help you understand the roller coaster problem? What kind of math could you use to represent your model? What key pieces of information from the roller coaster problem should be in your model and your equation?"
Section II: Additional Alignment Criteria and Indicators of Superior Quality			
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. ☐ Yes ☐ No	**Required** **5a)** Materials provide all students **extensive work** with grade/course-level problems.		See EdReports for more information.
	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.		
	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.		
	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.		

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. ☐ Yes ☐ No	**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.		
	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.		
	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.		
	6d) Materials provide 2-3 **comprehensive assessments** (interims/benchmarks) that measure student learning up to the point of administration.		
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 address students' unfinished learning in order to access grade-level work. ☐ Yes ☐ No	**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.		
	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.		
	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.		
	7d) Materials **identify prerequisite skills and concepts** for the major work of the grade/course, connected to the current on-grade/course-level work.	**Yes**	Materials identify prerequisite skills and concepts for the major work of the grade. In the Module Overview, margin notes titled, "Before This Module," provide prerequisite skills from previous grades or earlier in the current grade students need to be successful. As an additional purchase, the Eureka Math^2 Equip provides tools that help identify and support students with unfinished learning. As part of Equip, the Pre-Module Assessment Overview lists essential foundational knowledge needed to access current grade-level content. For example, the Equip Module 1: Multiplication and Division with Units of 2, 3, 4, 5, and 10 Overview identifies essential foundational knowledge needed to access the content within Module 1 such as, "Count forward by ones, tens, and hundreds within 1,000, starting at any number." "Skip-count by fives." "Write a repeated addition equation to represent equal groups or an array, including writing an equation to express an even number as the sum of two equal addends." and "Represent equal groups of up to 5 groups of 5 objects by using manipulatives or drawings and apply an addition strategy (such as counting on, skip-counting, or doubles) to find the total number of objects." In

			Module 2, Before This Module states, “In grade 2, students describe and apply place value concepts to two- and three-digit numbers. They count and bundle ones, tens, and hundreds up to 1,000. Students read and write numbers in standard, unit, and expanded forms and apply place value understanding to add and subtract two- and three-digit numbers by using a variety of strategies. Simplifying strategies consist of composing and decomposing tens and hundreds to make problems easier to compute mentally and developing various written methods to record student thinking. Students also estimate and measure length by using a variety of tools and units in the customary and metric systems of measurement. Grade 3 uses familiar place value concepts to expand student understanding of metric measurement of weight and liquid volume and to develop fluency in addition and subtraction within 1,000.”
	7e) Materials provide guidance to help teachers **identify students** who need prerequisite work to engage successfully in core instruction, on-grade/course-level work.	**Yes**	Materials provide guidance to help teachers identify students who need prerequisite work to engage successfully in core instruction. The Implementation Guide references that Pre-Module Assessments are available with Eureka Math Squared Equip to identify and support students’ unfinished learning. The Pre-Assessments “focus on assessing foundational knowledge essential to the content of the upcoming lesson.” The Pre-Module Assessment reports provide data to identify student-specific needs. The goal of the pre-assessment is to clearly

			identify which students need to engage in supporting content before, or during, grade-level instruction for each module.
	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.	**Yes**	Materials provide targeted, aligned, prerequisite work for the major work of the grade directly connected to specific lessons and units in the curriculum. The materials include four Pre-Module Assessments that target foundational, prerequisite knowledge for the upcoming modules. The Pre-Module Assessments results used along with the Equip User Guide provide specific activities to provide timely remediation for the current module. Teachers are guided to analyze the results after a pre-assessment is administered. Each item in the Pre-Assessment corresponds to at least one Supporting Activity that can be used to meet the needs of students who require prerequisite work. The Equip User Guide provides information for the Supporting Activity that corresponds to each item in the Pre-Module assessment, such as explanations of why the knowledge is foundational to the module, when specifically in the module the knowledge will be needed, and where in the module there is lesson-embedded practice with the foundational knowledge. For example, for Modules 2 and 3, Item 1 of the Pre-Assessment references lessons that address foundational content, such as Grade 2, Module 1, Topic B, Lessons 6-8, and Grade 2, Module 1, Topic D, Lessons 15-16. In addition, a Supporting Activity is provided that aligns with the foundation

			content for the Pre-Assessment item. Further in the guide, materials provide explanations of why the knowledge is foundational to the module, when specifically in the module the knowledge will be needed, and where in the module there is lesson-embedded practice with the foundational knowledge.
	7g) Materials provide **clear guidance and support** for teachers about the structures that allow students to appropriately address unfinished learning using prerequisite work.		See EdReports for more information.
FINAL EVALUATION ***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.			
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 Quality[5]	1. Focus on Major Work	**Yes**	Materials devote a large majority of time to the major work of the grade. Materials spend minimal time on content outside of the appropriate grade level. In assessment materials, assessment components do not make students/teachers 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 and/or two or more domains in the grade level where these connections are natural and important.

[5] Must score a "Yes" for all Non-negotiable Criteria to receive a Tier 1 or Tier 2 rating.

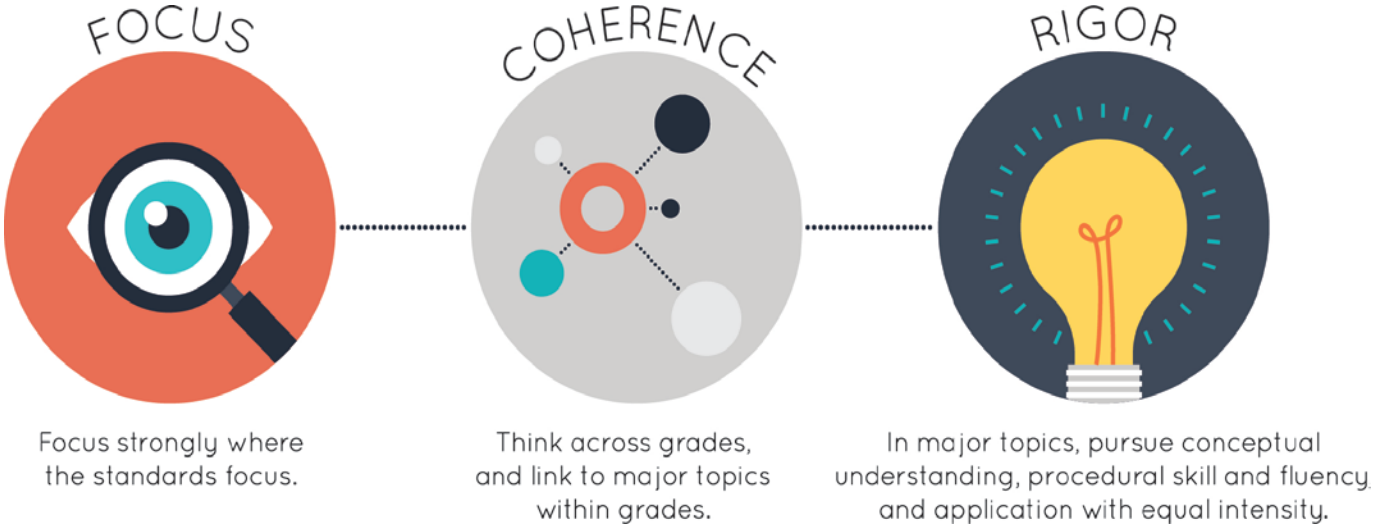
	3. Rigor and Balance	**Yes**	Materials develop conceptual understanding of key mathematical concepts, especially where called for explicitly in the standards. Materials are designed so that students attain the fluencies and procedural skills required by the standards. Materials are designed so that students 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-level content and is meaningfully present throughout the materials. Materials provide sufficient opportunities for students to construct viable arguments and critique the arguments of others concerning key grade-level mathematics that is detailed in the content standards. Materials explicitly attend to the specialized language of mathematics. 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 Quality[6]	5. Alignment Criteria for Standards for Mathematical Content		See EdReports for more information.
	6. Quality of Assessments		See EdReports for more information.
	7. Additional Indicators of Quality		Materials identify prerequisite skills and concepts for the major work of the grade

[6] Must score a "Yes" for all Additional Criteria of Superior Quality to receive a Tier 1 rating.

			when applicable. Materials provide guidance to help teachers identify students who need prerequisite work to engage successfully in core instruction. Materials provide targeted, aligned, prerequisite work for the major work of the grade directly connected to specific lessons and units in the curriculum.
FINAL DECISION FOR THIS MATERIAL: **Tier 1, Exemplifies quality**			

Qualified for Abbreviated Review[1]

Strong mathematics instruction contains the following elements:



Title: **Eureka Math[2]**

Grade/Course: **4**

Publisher: **Great Minds PBC**

Copyright: **2021**

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	

[1] Abbreviated Reviews are conducted in K-12 ELA and K-12 Math for submissions that **Meet Expectations** for Gateways 1 and Gateway 2 through EdReports. Reviewers considered these reports as they reviewed materials for alignment to Louisiana state standards and quality Non-negotiable indicators. See the full EdReports review at https://www.edreports.org/reports/overview/eureka-math2-2021.

To evaluate instructional materials for alignment with the standards and determine tiered rating, begin with **Section I: Non-negotiable Criteria**.

- Review the **required**[2] 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.

[2] **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.			
Non-negotiable **1. FOCUS ON MAJOR WORK[3]:** Students and teachers using the materials as designed devote the large majority[4] of time to the major work of the grade/course. ☒ Yes ☐ No	**Required** **1a)** Materials devote the **majority** of class time to the major work of each grade/course.	**Yes**	Materials devote a large majority of time to the major work of the grade. Of the 144 instructional lessons, 76% are spent on major work of the grade. Specifically, 69% of lessons are spent on major standards, 8% of lessons are spent on a combination of major standards and supporting/additional standards, and 24% of lessons are spent on supporting or additional standards.
	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.	**Yes**	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 they are introduced. Lessons that address content outside of the grade level are clearly marked as optional. In addition, the materials include a Louisiana Teacher Alignment Guide that provides modifications to lessons, lesson components, and assessment items to ensure full alignment to the Louisiana Student Standards for Mathematics (LSSM). The guide indicates one lesson to omit completely since it addresses content outside of the grade level. In addition, the guide includes additional lessons to meet

[3] For more on the major work of the grade, see Focus by Grade Level.
[4] 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%.

			the full intent of the standards. For example, the Louisiana Teacher Alignment Guide for Grade 4 states to omit all versions of Module 2, Topic D, Quiz items 2 and 6 (LSSM 4.MD.D.8), along with all versions and all items of Module 4, Topic B Quiz. This specific assessment and aligned lessons (Lessons 8, 9, and 19) use fractions with denominators not included in the LSSM. In addition, the guide provides new items to align with LSSM 4.MD.D.8 for Benchmark 1, Session 2. In the Louisiana Teacher Alignment Guide for Module 5, Lesson 14 is labeled "omit" because the lessons call for learning outside of Grade 4 LSSM. In addition, Benchmark 3, Session 2 states to "omit item 7."
Non-negotiable **2. CONSISTENT, COHERENT CONTENT** Each course's instructional materials are coherent and consistent with the content in the Standards. ☒ Yes ☐ No	**Required** **2a)** Materials connect **supporting content to major content** in meaningful ways so that focus and coherence are enhanced throughout the year.	**Yes**	Materials connect supporting content to major content in meaningful ways so that focus and coherence are enhanced throughout the year. Materials are structured so that lessons that address major work precede lessons that address supporting work allowing major work of the grade to be applied and reinforced throughout the year. The Achievement Descriptors and Standards section located at the beginning of each lesson note the connections made among other standards within the lesson. For example, students first develop an understanding of multiplicative comparison in Module 1, Lessons 1-4. Then, in Module 1, Lesson 23, students express metric measurement of length in terms of smaller units, connecting supporting LSSM 4.MD.A.1 to

			major LSSM 4.OA.A.2 as students use multiplicative comparison language to describe the relative size of the units. In Module 2, Lesson 7, students draw and decompose an area model to multiply a two-digit number by a one-digit number, connecting supporting LSSM 4.MD.A.3 to major LSSM 4.NBT.B.5, which is first developed in Module 2, Lessons 1-6. During the lesson, students create a context to describe an additive comparison and a multiplicative comparison represented by a tape diagram, including solving problems of area and perimeter. Specifically in the Learn section of the lesson, the teacher asks, "How does showing the factors as the side lengths of a rectangle help you find the product of 3 and 12?" In Module 4, Lesson 20, students subtract fractions by renaming 1 as a fraction and solve word problems connecting supporting LSSM 4.MD.A.2 to major LSSM 4.NF.B.3.a which was first developed in earlier lessons. For example, students solve, "Luke buys 15 pounds of rice. He uses 1/4 pounds of rice. How many pounds of rice does Luke have left?"
	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.	**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. Various lessons throughout the materials include standards from multiple clusters and/or domains. Module 1, Lesson 6 connects the Operations and Algebraic Thinking (OA)

			and Number and Operations in Base Ten (NBT) domains in the Learn section of the lesson as students use multiplication on a place value chart. In the lesson, students write multiplication equations in unit form recording 10 x 1 one = 1 ten, then in standard form as 10 x 1 = 10. The process is repeated for each place value unit (LSSM 4.OA.A.1 and 4.NBT.A.1). Module 4, Lesson 28 connects the Measurement and Data (MD) and the Number and Operations-Fractions (NF) domains as students solve the following problem: "Ray bikes 4 4/10 km. Zara bikes 2 7/10 km. How many more kilometers does Ray bike than Zara? How many kilometers do Ray and Zara bike together?" (LSSM 4.MD.A.2 and 4.NF.B.3d). Module 4 connects clusters A (Extend understanding of fraction equivalence and ordering) and B (Build fractions from unit fractions by applying and extending previous understanding of operations on whole numbers) of the Number and Operations - Fractions (NF) domain. The module begins with fraction decomposition and equivalence in Topic A, elevating cluster B (LSSM 4.NF.B.3a, 4.NF.B.3b). As the Module progresses, the students extend understanding of fraction equivalence as they decompose a fraction into smaller unit fractions, showing equivalence on number lines, in area models, or in equations as sums of smaller unit fractions. They also generate a multiplication sentence of those sums of smaller unit fractions. Students choose a

			method that is efficient for them in finding equivalent fractions as seen in Lesson 11 as they prove that ¼ is equivalent to 3/12 (LSSM 4.NF.A.1, 4.NF.A.2). Lessons 18 - 34 of Module 4 bring students back to cluster B as they extend understanding of operations of whole numbers and apply that to adding and subtracting fractions and mixed numbers. Module 6 connects the Geometry (G) and Measurement and Data (MD) domains as students explore angle measurements and plane figures. Students are introduced to lines and angles in Topic A, identifying points, lines, and line segments of the Geometry domain (LSSM 4.G.A.1) prior to studying angle measurement in Topic B where they explore angles being 1/360 of a turn through a circle (LSSM 4.MD.C.5).
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. ☒ Yes ☐ No	**Required** **3a)** ***Attention to Conceptual Understanding:*** Materials **develop conceptual understanding of key mathematical concepts,** especially where called for explicitly in specific content standards or cluster headings by featuring high-quality conceptual problems and discussion questions.	**Yes**	Materials develop conceptual understanding of key mathematical concepts, especially where called for explicitly in the standards. Throughout each of the modules, the materials provide activities and discussion prompts to build conceptual understanding. At the end of the lessons, students demonstrate an understanding of the concepts presented in the lesson. The materials align with the rigor expectations specified in the standards. Students develop the concepts through a combination of concrete, pictorial, and abstract experiences over time. Throughout the materials, students use visual models, multiple representations, and manipulatives to build conceptual

			understanding. For example, in Module 1, Lessons 1-3, students build understanding of interpreting multiplication equations as a comparison and represent verbal statements of multiplicative comparisons as multiplication equations (LSSM 4.OA.A.1). In Lesson 1, students describe multiplication patterns by using times as many. In Lesson 3, multiplicative relationships are described using words and equations. For example, in the Learn section students solve “This week Casey runs 8 kilometers and Robin runs 40 kilometers. How many times as far does Robin run as Casey?” Students draw a tape diagram to solve and answer using a written equation with units to represent the statement. In Module 3, students use a place value chart and an area model as an introduction to partial products before using the standard algorithm (vertical form) for procedural skill and fluency (LSSM 4.NBT.B.5). For instance, the Learn portion of Lesson 9 begins with students multiplying a 3-digit number by a 1-digit number on the place value chart while also writing the 3-digit number in expanded form, emphasizing unit language. This leads students into the work of partial products with the area model later in the same lesson, breaking apart 340 as 3 hundreds and 4 tens when multiplying by 5 ones. Conceptual Understanding is again highlighted in Module 4 as students engage with foundations for fraction operations (LSSM 4.NF.B.3) prior to Module 5 which focuses

			on place value concepts for decimal fractions (LSSM 4.NF.C.5). For example, in Module 5, Lesson 6, in the Land portion of the materials, students analyze various representations and explain how they each show that the unit of hundredths is like other place value units. They build on this understanding in Lesson 2 as they write mixed numbers in decimal form, applying what they know about fractions to their learning around decimal fractions. In Module 4, Lessons 13-16, students compare fractions with unlike numerators and denominators by using models and benchmark and rename fractions to create common denominators and numerators (LSSM 4.NF.A.2). Students build conceptual understanding beginning in Lesson 13 as they reason about the distance a fraction is from 0, ½, or 1 to plot fractions on a number line, justify the placement of the fraction, and write comparison statements. In Lessons 14 through 16, students rename fractions so the fractions have a common denominator, then compare the units to write comparison statements. In Module 5, Lesson 8 students demonstrate their understanding of decimals with money. In the Launch portion of Lesson 8, students explore money as it relates to decimals while examining three different representations for the same amount of money and discuss the relationship to place value units, tenths, and hundredths (LSSM 4.NF.C.5, 4.NF.C.6).

	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.	**Yes**	Materials are designed so that students attain the fluencies and procedural skills required by the standards. Materials are designed so that students attain the fluencies and procedural skills required by the standards. Each lesson begins with fluency practice to support a progression of learning over time throughout the course. Students have opportunities to develop procedural skills aligned with the standards in the materials. According to the Implementation Guide, "Fluency provides distributed practice with previously learned material. It is designed to prepare students for new learning by activating prior knowledge and bridging small learning gaps. Fluency routines are developed over time to support students in counting and calculating as they are used consistently across lessons and include activities such as choral response, Whiteboard Exchange, and Sprint. The implementation guide provides guiding questions and suggestions for fluency implementation. Additionally, fluency is expected as an end-of-the-year performance expectation but can be achieved at various points throughout the year. For example, in the Fluency section of Module 2, Lesson 17, students count on a number line by 6 to find all factor pairs for a given whole number (LSSM 4.OA.B.4a). In Module 4, Lesson 15, Fluency, students build fluency with decomposing fractions greater than 1 by determining the unknown addend and write an equation (LSSM 4.NF.A.1). In

			Module 1, Lessons 5 and 7-11, students write numbers to 1,000,000 in standard, expanded, and word form while also comparing larger numbers (LSSM 4.NBT.A.2). In Lessons 16-22 of Module 1, students develop fluency with the standard algorithm of multi-digit whole number addition and subtraction (LSSM 4.NBT.B.4). In Lesson 16, students use 5-group columns and 5-group rows to represent addition with place value disks as connected to the standard algorithm (vertical form). Students are introduced to regrouping on the line with new groups below instead of regrouping above the number in vertical form, further solidifying conceptual understanding as they build procedural skill. The use of place value disks is mirrored in Lesson 18 as students record multi-digit subtraction with the vertical form during the Learn portion of the lesson. Students are also provided small grids in their Problem Sets to ensure proper alignment as they practice multi-digit addition and subtraction. Students practice multiplying and dividing whole numbers in Modules 2 and 3 (LSSM 4.NBT.B.5 and 4.NBT.B.6). Beginning in Module 2, students practice multiplying one-digit numbers by multiples of 10, preparing them for more challenging factors with familiar strategies in Topic B. This similar structure is used with division in Topic C across 6 lessons, allowing students ample opportunities for practice. Students extend this learning into Module 3 as they explore multiplying and dividing

			into the thousands and record their work in the standard algorithm (vertical form). Another example of enhancing procedural skill and fluency shows up in Module 4 Lesson 15 Fluency activity, Decompose Fractions (LSSM 4.NF.A.1).
	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.	**Yes**	Materials are designed so that students spend sufficient time working with engaging applications. The materials provide practice with single- and multi-step contextual problems that develop the mathematics for the grade and engage students in problem solving. The progression of the modules includes opportunities within the lessons to apply conceptual understanding and procedural skills within the context of real-world problems. Students answer questions in pairs, small groups, and whole groups where they justify and explain their reasoning. LSSM 4.OA.A.2 is addressed throughout Module 1, Lessons 1-4. For example, in Lesson 3, students apply knowledge of multiplicative comparisons to solve the following problem: “This week Casy runs 8 kilometers and Robin runs 40 kilometers. How many times as far does Robin run as Casey?” (LSSM 4.OA.A.2). In Module 2, Lesson 14, Launch, students solve multi-step word problems involving whole numbers. For example, students seek to distribute pencils equally among teachers and reason about how to do so with multiplication and division (LSSM 4.OA.A.3). In Module 4, Lesson 21, students add and subtract fractions to solve the following problem: “Shen walks

			¼ mile in the morning and ⅗ miles in the afternoon. How many total miles does Shen walk?" (LSSM 4.NF.B.3d). Problem Sets also provide opportunities for students to engage in multi-step word problems as seen in Module 2, Lesson 20, item 8. Students calculate the area and perimeter with given side lengths or a missing side length. This is later applied again with multi-step problems in Module 6, Lesson 6 as students begin to apply their knowledge of area and perimeter with floor plans (LSSM 4.MD.A.3). When engaging with problems of this nature, students also provide justification or reasoning as in the case of Module 6, Lesson 7, Problem Set item 6, which states, "Carla says that ¾ and 6/8 of a 1 whole turn are the same angle. Do you agree? Use the circles to help explain your answer." (LSSM 4.MD.C.5a).
	Required **3d)** ***Balance:*** The three aspects of **rigor** are not always treated together and are not always treated separately.	**Yes**	It is evident in the materials that the three aspects of rigor are not always treated together and are not always treated separately. The materials reflect the balance of rigor in the standards. The structure of the materials help students develop the concepts and skills necessary to build and apply math knowledge. The Lessons are structured into sections titled Fluency, Launch, Learn, and Land. The three components of rigor are found within different sections of the lesson, and the lessons align with the expectations of rigor within each standard. Procedural skills and fluency appear in each lesson in the opening Fluency activity. The Fluency

			component enables students to develop fluency with skills from all clusters. The Launch and Learn components engage students in both conceptual understanding and procedural skill and fluency. The Problem Set and Exit Ticket offer students the opportunity to independently apply their procedural skill and fluency, show their conceptual understanding, and solve applications such as word problems. In Land, students often engage in a discussion about their conceptual understanding of the student work. For example, in Module 1, Lesson 17, students apply conceptual understanding as they engage in multi-step word problems, such as "On Saturday, 125,649 more packages were delivered than were delivered on Sunday. On Sunday, 293,848 packages were delivered. How many packages were delivered on both days combined?" (LSSM 4.OA.A.3). Within Module 4, students begin working conceptually as they decompose fractions to find equivalence (LSSM 4.NF.A.1). They then move into more procedural skill and fluency as they practice generating equivalent fractions through Topic B. They continue to build understanding in Topic C as they compare fractions using benchmarks and related numerators or denominators (LSSM 4.NF.A.2). In Module 5, Lesson 12, Problem Set, students begin with unit form of decimal fractions as they add (procedural skill and fluency), but then use models to show conceptual understanding

			of adding tenths and hundredths while solving item 15, “Miss Diaz walks 67/100 kilometers to the library. Then she walks 3/10 kilometers to the gym. How many kilometers does Miss Diaz walk altogether?” (LSSM 4.NF.C.5). In Module 6, Lesson 7, the Fluency section focuses on procedural skill and fluency as students add and subtract whole numbers (LSSM 4.NBT.B.4). During the Learn section of Lesson 7, students build conceptual understanding as they observe a model of a fraction and consider its relationship to angles to understand equal partitioning and unit emphasis to understand angle and turn measure. Further in the lesson, students construct an angle maker and reason the number of fractional units needed to make one whole turn, then name the angle types. (LSSM 4.MD.C.5).
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. ☒ Yes ☐ No	**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.	**Yes**	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. The materials support students’ habits of mind based on the mathematical practices while also building conceptual understanding, developing fluency, and applying understanding. Margin notes in the teacher materials provide cues and connections to the work of the students and the Standards for Mathematical Practice. Each lesson in the modules has a section titled, “Promoting the Standards for Mathematical Practice,” which identifies the mathematical practice

			standards present in the lesson. This section also provides context of where Grade 4 students should be in the progression of the mathematical practices. For example, in Module 1, Lesson 11, students make sense of problems and persevere in problem solving (MP.1) as they determine the rule for a number pattern and use the rule to complete the pattern (LSSM 4.OA.C.5). Students answer the following questions as they make sense of problems and persevere in solving them: “What can you figure out about the rule by looking at what is given in the number pattern?” and “Does your rule make sense for the number pattern? If not, is there something else you can try?” In Module 2, Lesson 4, students use appropriate tools strategically (MP.5) as they choose a strategy and use what they know about multiplication and place value to solve 3 x 82 (LSSM 4.NBT.B.5). Students answer the following questions: “What kind of picture or diagram might help you find 82 x 3?” “Why did you choose your strategy?” and “Did the strategy work for you?” In Module 2, Lesson 9, students draw to represent a multiplicative comparison situation and then select a method to multiply, emphasizing the selection of appropriate tools strategically (MP.5). As students choose tools, they answer the following questions: “Why did you choose your method for finding 4 x 75? Did that method work well for you?” In Module 3, Lesson 12, students attend to precision (MP.6) as they find a product by

			recording partial products with renaming units in vertical form (LSSM 4.NBT.B.5). Students answer the following questions as they attend to precision, "When finding 3 x 647 and recording partial products with renaming units in vertical form, what do you need to be extra careful with? Why?" and "Where might you make an error when finding a product and recording partial products with renaming units in vertical form?" In Module 3, Lesson 16, students look for and make use of structure (MP.7) as they multiply and record with two partial products in vertical form with regrouping in both partial products (LSSM 4.NBT.B.5). Students answer questions such as "How can what you know about multiplying single-digit numbers help you find 62 x 23?"
	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.	**Yes**	Materials provide sufficient opportunities for students to construct viable arguments and critique the arguments of others concerning key grade-level mathematics that is detailed in the content standards. The lessons are structured with opportunities for students to engage in mathematical reasoning through discussion questions and prompts. The materials provide opportunities for students to form viable arguments and critique the arguments of others throughout the lessons. Lessons also include several routines designed to promote discourse. For example, students determine a misconception in sample work and then construct viable arguments to convince the teacher of the correct

			solution path or solution. The materials also provide opportunities for students to conduct error analyses. In Module 4, Lesson 11, Launch, students observe and discuss a picture of two area models. By the end of the discussion, students reason that multiplication and division can represent decomposing and composing fraction units to find equivalent fractions. In Module 5, Lesson 6, students use place value understanding to identify hundredths as a place value unit. Teacher guidance states, “Fractional units are also place value units. Use the Always, Sometimes, Never routine to engage students in constructing meaning and discussing their ideas. Give students one minute of silent think time to evaluate whether the statement is always, sometimes, or never true. Have students discuss their thinking with a partner. Circulate and listen as they talk. Identify a few students to share their thinking.” In Module 5, Lesson 11, students justify their answers when comparing decimal numbers as the teacher asks, “Is your answer a guess or do you know for sure?” “How do you know for sure?” and “Why does your strategy to compare decimal numbers work? Convince your partner.” In Module 5, Lesson 14, Launch, students discuss strategies for adding mixed numbers and fractions as they engage in the routine of “Which One Doesn’t Belong?” This routine is repeated throughout the materials, allowing students to critique their peers and

			engage in mathematical reasoning. In Module 6, Lesson 2, Launch, students find a category in which three of the figures belong, but the fourth does not. Students have two minutes to identify a category for the provided items. Once complete, the teacher invites students to explain their chosen categories and justify why one item would not fit into the category. Teachers are encouraged to ask questions that invite students to use precise language, make connections, and ask questions of their own.
	Required **4c)** Materials explicitly attend to the **specialized language** of mathematics.	**Yes**	Materials explicitly attend to the specialized language of mathematics. The materials use and encourage the use of accurate mathematical terminology as appropriate for the grade level. The Terminology Resource identifies the specialized language of mathematics that is used throughout a module. The resource lists New and Familiar terminology with definitions and descriptions from the module. Items in the New category are discipline-specific words that are introduced to students within the module. These items include the definition, description, or illustration as it is presented to students. Language Support margin notes embedded in the lessons provide guidance to teachers as they support students with the specialized language of mathematics. Each Module Overview and Module Assessment Description addresses the proper terminology for students to use as well as definitions for key terms. The sample

			dialogue in each lesson includes the terminology teachers should expect from their students when they answer questions or share their thinking. For example, Module 1, Lesson 5, introduces students to the New terms: ten thousand, hundred thousand, and million. During the Launch portion of the lesson, students engage in familiar concepts of bundling and renaming or exchanging as they move from the hundreds to the thousands unit, transferring this understanding to organizing a given set of various bills. As the lesson progresses, the teacher intentionally asks students to identify larger values with prompts like, “Can you tell us how you used the place value chart to organize your bills?” and “What do you think the relationship is between thousands and ten thousands?” Module 2 defines the associative property of multiplication, composite number, distributive property, divisible, divisor, formula, partial product, partial quotient, prime number, and term (in a pattern) in the New Section. The terms area, area model, commutative property of multiplication, factor, foot, inch, length, multiple, perimeter, product, quotient, total, width, and yard are listed in the Familiar Section. Claim is listed in the Academic section. Within the Teaching Guide for Module 3, Lesson 6, a box titled Language Support is found in the Long Division and Vertical Form portion of the lesson. Guidance states, “Consider clarifying the use of the word long in the

			term long division. Some students might hear the word long and make assumptions about long division based on their understanding of long in reference to time or length. Clarify that long division is a process we can use to divide when mental math is not efficient. Ask, 'Would you use long division to find 40 / 2? Why?'"
	4d) There are teacher-directed materials that **explain the role of the practice standards** in the classroom and in students' mathematical development.	**Yes**	Materials include teacher-directed materials that explain the role of the practice standards in the classroom and in students' mathematical development. The materials provide a full explanation of the purpose and intent of the practice standards with in-lesson connections and context for instruction. Each lesson contains a section entitled "Promoting the Standards for Mathematical Practice" that links a specific practice standard to the content of the lesson. The section provides the context of the progression of the standard in the current grade level and in future learning. It provides a specific reference of the lesson activity that implements the practice standard. At the conclusion of each Module, when reviewing achievement descriptors and standards, mathematical practice standards are listed for each module. Within the Implementation Guide, the mathematical practices are explained and highlighted in the margin notes as they appear in specific lessons. Additionally, in the Implementation Guide, the grade level standards and practice standards are listed for educators as they are presented in all modules. In the section highlighting

			Lesson Facilitation, the guide describes effective delivery as “delivery that fosters student ownership and belonging. This curriculum supports this aspect by naturally presenting opportunities for students to practice the mathematical practice standards as they arise within the lessons.” In Module 1, Lesson 10, the Promoting the Standards for Mathematical Practice states, “When students repeatedly rename a number in different ways they are looking for and expressing regularity in repeated reasoning (MP8). Ask the following questions to promote MP8: What is the same about your reasoning when you rename 905,438 in different ways? What patterns do you notice as you repeatedly rename 905,438 by using fewer units?” Later, in Lesson 12, guidance for the teacher states, “Students attend to precision (MP.6) as they regroup thousands to ten thousands when rounding to the nearest thousand. Ask the following questions to promote MP6: What details are important to think about when rounding 739,625 to the nearest thousand? Where might you make an error when rounding 739, 625 to the nearest thousand.” Module 2, Lesson 10, promotes MP.5 as teachers are guided to probe students for their self-selected strategy for multiplication and explain their reasoning (using appropriate tools strategically).
Section II: Additional Alignment Criteria and Indicators of Superior Quality			

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. ☐ Yes ☐ No	**Required** **5a)** Materials provide all students **extensive work** with grade/course-level problems.		See EdReports for more information.
	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.		
	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.		
	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.		
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. ☐ Yes ☐ No	**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.		
	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.		

	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.		
	6d) Materials provide 2-3 **comprehensive assessments** (interims/benchmarks) that measure student learning up to the point of administration.		
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 address students' unfinished learning in order to access grade-level work. ☐ Yes ☐ No	**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.		
	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.		
	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.		
	7d) Materials **identify prerequisite skills and concepts** for the major work of the grade/course, connected to the current on-grade/course-level work.	**Yes**	Materials identify prerequisite skills and concepts for the major work of the grade. In the Module Overview, margin notes titled, "Before This Module," provide prerequisite skills from previous grades or earlier in the current grade students need to be successful. As an additional purchase, the Eureka Math^2 Equip provides

			tools that help identify and support students with unfinished learning. As part of Equip, the Pre-Module Assessment Overview lists essential foundational knowledge needed to access current grade-level content. For example, the Equip Module 1: Place Value Concepts for Addition and Subtraction Overview identifies essential foundational knowledge needed to access the content within Module 1 such as, “Write a three-digit number in unit form to show that each digit represents an amount of hundreds, tens, and ones and that the numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to 1, 2, 3, 4, 5, 6, 7, 8, or 9 hundreds (0 tens 0 ones).” “Read and write numbers to 1,000 by using base ten numerals, word form, and expanded form.” and “Compare 2 three-digit numbers by using >, =, and < symbols.” As teachers begin the Launch section of Module 1, Lesson 1, the margin note states, “In grade 3, students use the term pattern to describe the relationship between numbers in input-output tables. In this lesson, pattern refers to a collection of figures that follow a rule. A rule describes the relationship between consecutive figures in the pattern.” Later in the same lesson, another connection to a prerequisite skill is made in the teacher notes in the right margin: “In grade 3, students use a variation of brackets when drawing tape diagrams. This variation enables students to label the tape without the added complexity of drawing the

			brackets. In grade 4, students see tape diagrams labeled with brackets but continue to draw arms. Students may transition to brackets as they are ready."
	7e) Materials provide guidance to help teachers **identify students** who need prerequisite work to engage successfully in core instruction, on-grade/course-level work.	**Yes**	Materials provide guidance to help teachers identify students who need prerequisite work to engage successfully in core instruction. The Implementation Guide references that Pre-Module Assessments are available with Eureka Math Squared Equip to identify and support students' unfinished learning. The Pre-Assessments "focus on assessing foundational knowledge essential to the content of the upcoming lesson." The Pre-Module Assessment reports provide data to identify student-specific needs. The goal of the pre-assessment is to clearly identify which students need to engage in supporting content before, or during, grade-level instruction for each module.
	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.	**Yes**	Materials provide targeted, aligned, prerequisite work for the major work of the grade directly connected to specific lessons and units in the curriculum. The materials include four Pre-Module Assessments that target foundational, prerequisite knowledge for the upcoming modules. The Pre-Module Assessments results used along with the Equip User Guide provide specific activities to provide timely remediation for the current module. Teachers are guided to analyze the results after a pre-assessment is administered. Each item in the Pre-Assessment corresponds to at least one Supporting Activity that can be used to

			meet the needs of students who require prerequisite work. The Equip User Guide provides information for the Supporting Activity that corresponds to each item in the Pre-Module assessment, such as explanations of why the knowledge is foundational to the module, when specifically in the module the knowledge will be needed, and where in the module there is lesson-embedded practice with the foundational knowledge. For example, for Module 1, Item 1 of the Pre-Assessment references lessons that address foundational content, such as Grade 2, Module 1, Topic E, Lesson 20 and Grade 2, Module 1, Topic F, Lesson 25. In addition, a Supporting Activity is provided that aligns with the foundation content for the Pre-Assessment item. Further in the Guide, materials provide explanations of why the knowledge is foundational to the module, when specifically in the module the knowledge will be needed, and where in the module there is lesson-embedded practice with the foundational knowledge.
	7g) Materials provide **clear guidance and support** for teachers about the structures that allow students to appropriately address unfinished learning using prerequisite work.		See EdReports for more information.
FINAL EVALUATION ***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.			
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 Quality[5]	1. Focus on Major Work	**Yes**	Materials devote a large majority of time to the major work of the grade. Materials spend minimal time on content outside of the appropriate grade level. In assessment materials, assessment components do not make students/teachers 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 and/or two or more domains in the grade level 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-level content and is meaningfully present throughout the materials. Materials

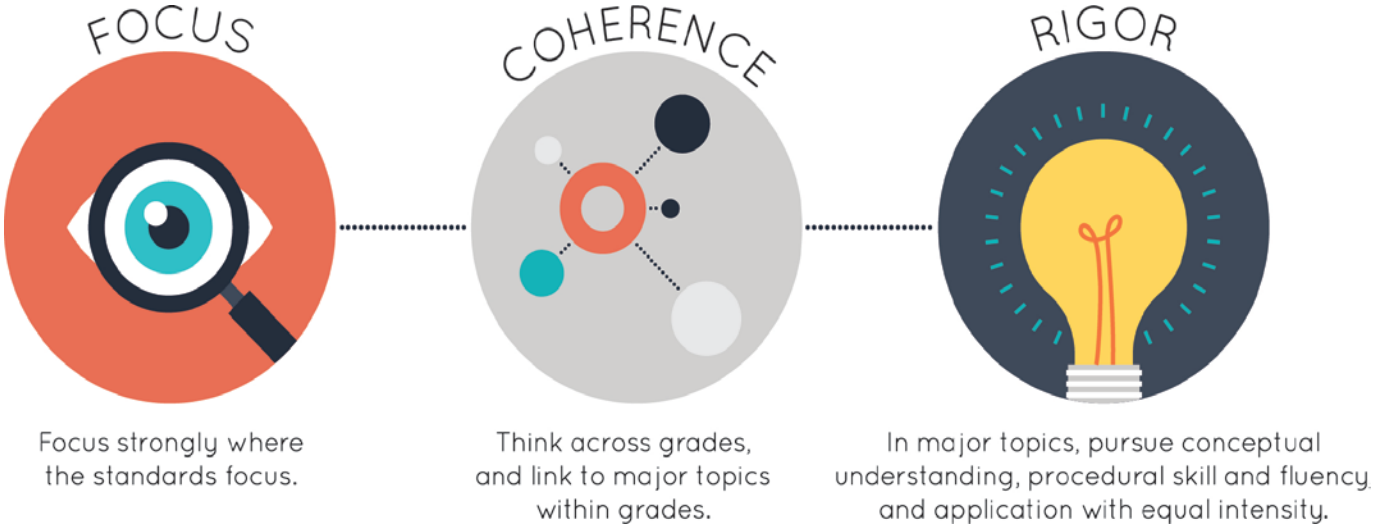
[5] Must score a "Yes" for all Non-negotiable Criteria to receive a Tier 1 or Tier 2 rating.

			provide sufficient opportunities for students to construct viable arguments and critique the arguments of others concerning key grade-level mathematics that is detailed in the content standards. Materials explicitly attend to the specialized language of mathematics. 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 Quality[6]	5. Alignment Criteria for Standards for Mathematical Content		See EdReports for more information.
	6. Quality of Assessments		See EdReports for more information.
	7. Additional Indicators of Quality		Materials identify prerequisite skills and concepts for the major work of the grade when applicable. Materials provide guidance to help teachers identify students who need prerequisite work to engage successfully in core instruction. Materials provide targeted, aligned, prerequisite work for the major work of the grade directly connected to specific lessons and units in the curriculum.
FINAL DECISION FOR THIS MATERIAL: **Tier 1, Exemplifies quality**			

[6] Must score a "Yes" for all Additional Criteria of Superior Quality to receive a Tier 1 rating.

Qualified for Abbreviated Review[1]

Strong mathematics instruction contains the following elements:



Title: **Eureka Math[2]**

Grade/Course: **5**

Publisher: **Great Minds PBC**

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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	

[1] Abbreviated Reviews are conducted in K-12 ELA and K-12 Math for submissions that **Meet Expectations** for Gateways 1 and Gateway 2 through EdReports. Reviewers considered these reports as they reviewed materials for alignment to Louisiana state standards and quality Non-negotiable indicators. See the full EdReports review at https://www.edreports.org/reports/overview/eureka-math2-2021.

To evaluate instructional materials for alignment with the standards and determine tiered rating, begin with **Section I: Non-negotiable Criteria**.

- Review the **required**[2] 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.

[2] **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.			
Non-negotiable **1. FOCUS ON MAJOR WORK[3]:** Students and teachers using the materials as designed devote the large majority[4] of time to the major work of the grade/course. ☒ Yes ☐ No	**Required** **1a)** Materials devote the **majority** of class time to the major work of each grade/course.	**Yes**	Materials devote a large majority of time to the major work of the grade. Of the 137 lessons, 73% of instructional lessons are spent on major work of the grade. Specifically, 64% of lessons are spent on major standards, 9% of lessons are spent on a combination of major standards and supporting/additional standards, 25% of lessons are spent on supporting or additional standards, and 2% of lessons are labeled as optional.
	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.	**Yes**	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 they are introduced. Lessons that address content outside of the grade level are clearly marked as optional. In addition, the materials include a Louisiana Teacher Alignment Guide that provides modifications to lesson components to ensure full alignment to the Louisiana Student Standards for Mathematics (LSSM). For example, Module 6 includes 20 lessons, and two of the lessons are optional. Module 6, Lesson 10 is labeled as optional as it goes beyond the scope of

[3] For more on the major work of the grade, see Focus by Grade Level.
[4] 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%.

			the Grade 5 LSSM encompassing patterns in a coordinate system. In addition, Module 6, Lesson 19, and Module 4, Lesson 26 are labeled as optional, as well. In the Louisiana Teacher Alignment Guide, Module 1, Apply Lesson 15, guidance states to omit problem 4 in the Practice and problem 4 in the Practice Partner. For Module 3, Apply Lesson 5, guidance states to omit problem 11 in the Practice and problem 6 in the Practice Partner.
Non-negotiable **2. CONSISTENT, COHERENT CONTENT** Each course's instructional materials are coherent and consistent with the content in the Standards. ☒ Yes ☐ No	**Required** **2a)** Materials connect **supporting content to major content** in meaningful ways so that focus and coherence are enhanced throughout the year.	**Yes**	Materials connect supporting content to major content in meaningful ways so that focus and coherence are enhanced throughout the year. Materials are structured so that lessons that address major work precede lessons that address supporting work allowing major work of the grade to be applied and reinforced throughout the year. The Achievement Descriptors and Standards section located at the beginning of each lesson note the connections made among other standards within the lesson. For example, students first develop an understanding of LSSM 5.NF.A.2 in Module 2, Lessons 10-14. This understanding is applied in Module 2, Lesson 17. During the lesson, students make line plots to represent data sets in fractions of units, connecting supporting LSSM 5.MD.B.2 with major LSSM 5.NF.A.2 as students solve word problems involving addition and subtraction of fractions and mixed numbers with unlike units. For example, in the Problem Set, students use a line plot that represents the weights of rice in containers. Students model the

			problem by shading how many pounds of rice are in each container, then answer "How many eighths are shaded altogether?" Students continue to build fraction concepts in Module 3, Lessons 1-4 as the lessons address LSSM 5.NF.B.4 and LSSM 5.NF.B.5. This knowledge is then applied in Lessons 5 and 6. During the lesson, students convert among units within the customary measurement system to solve problems connecting supporting LSSM 5.MD.A.1 to LSSM 5.NF.B.4 and 5.NF.B.5. Specifically in Lesson 5, students work to convert ⅔ lb to ounces by multiplying the fraction ⅔ to the whole number 16 (LSSM 5.NF.B.5 and 5.MD.A.1).
	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.	**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. Various lessons throughout the materials include standards from multiple clusters and/or domains. Module 1, Lesson 7 connects the Number and Operations in Base Ten (NBT) and Operations and Algebraic Thinking (OA) domains. During the lesson, students multiply a five-digit factor by a one-digit factor (LSSM 5.NBT.B.5) using the distributive property (LSSM 5.OA.A.1). For example, students solve the problem "On a typical day, a grade 5 student takes 24,165 breaths in one day. How many breaths will you and 5 friends take in one day?" by distributing 5 to 20,000, 4,000, 100, 60 and 5. Module 4, Lesson 18,

			connects the major work of the Numbers and Base Ten Operations (NBT) domain with the Numbers and Operations of Fractions (NF) domain. The lesson's objective is to relate decimal-number multiplication (LSSM 5.NBT.B.7) to fraction multiplication (LSSM 5.NF.B.4). Within the Learn portion of the materials, the teacher notes, "We can use what we know about fraction multiplication to find 0.1 x 0.1. What is 0.1 renamed in fraction form?" Module 6, Lessons 7-9 connect the Operations and Algebraic Thinking (OA) domain with the Geometry (G) domain. For example, in Lesson 7 students use a starting number and a rule to generate the terms of a number pattern. They extend this understanding to the coordinate plane as they represent the number patterns in tables, form ordered pairs, and then graph the ordered pairs (LSSM 5.OA.B.3, 5.G.A.2). For example, students use pattern A, add 2, and pattern B, add 3, to first complete the patterns and then generate ordered pairs. Students plot the ordered pairs on the coordinate plane and answer questions such as, "What patterns do you notice among the points plotted in the coordinate plane?" "How are the table and graph of two number patterns related?" and "How can what you know about two number patterns help you locate points on the graph that represent the patterns?"
Non-negotiable **3. RIGOR AND BALANCE:**	**Required** **3a) *Attention to Conceptual Understanding:*** Materials **develop conceptual understanding of key mathematical**	**Yes**	Materials develop conceptual understanding of key mathematical concepts, especially where called for

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. ☒ Yes ☐ No	**concepts,** especially where called for explicitly in specific content standards or cluster headings by featuring high-quality conceptual problems and discussion questions.		explicitly in the standards. Throughout each of the modules, the materials provide activities and discussion prompts to build conceptual understanding. At the end of the lessons, students demonstrate an understanding of the concepts presented in the lesson. The materials align with the rigor expectations specified in the standards. Students develop the concepts through a combination of concrete, pictorial, and abstract experiences over time. Throughout the materials, students use visual models, multiple representations, and manipulatives to build conceptual understanding. In Module 1, students build an understanding of generalizing place value relationships in any multi-digit number (LSSM 5.NBT.A.1). In Lesson 1, students compare the same digits in different places and describe the relationship between the numbers as 10 times as much. In Lesson 2, students use the place value relationships to multiply and divide by 10 by 10. In the problem set, students solve "The 8 in 58,701 represents ___ times as much as the 8 in 5,870. In Lesson 3, students extend these place value concepts as they transition into the conceptual understanding of expressing whole-number powers of 10 in exponential form, standard form, and as repeated multiplication (LSSM 5.NBT.A.2). This lesson introduces the terms exponent, exponential form and power of 10. As students engage in the Launch portion of the lesson, they examine

			representations that show factors of 10 and identify which of the four representations presented doesn't belong. Moving into the Learn portion, students use Powers of 10 charts as they explore the representation of multiplying and dividing by tens. With this chart, students exhibit understanding of a place value disk and its movement on a place value chart when multiplying or dividing by ten while also providing an equation and the aligned exponential form. In Module 3, students develop an understanding of multiplication of a fraction or whole number by a fraction as scaling. In Lesson 1, students partition arrays into equal groups to find a unit fraction of a set. In Lessons 3 and 4, students multiply a whole number by a fraction to find the value of "5/4 of 7" (LSSM 5.NF.B.4). Students revisit conceptual understanding of cluster A of LSSM 5.NBT.A in Module 4, Lesson 2. Students model decimals to the thousandths place. During the Launch section, students observe four representations and identify how they are alike and how they are different. As they move into the Learn section of the same lesson, students represent decimal numbers to the thousandths place by using area models. Students explain how they use the area model to show thousandths. Students answer conceptual questions such as "What number does the area model…represent? How do you know? What does this tell you about the number…? How do you know?"

	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.	**Yes**	Materials are designed so that students attain the fluencies and procedural skills required by the standards. Materials are designed so that students attain the fluencies and procedural skills required by the standards. Each lesson begins with fluency practice to support a progression of learning over time throughout the course. Students have opportunities to develop procedural skills aligned with the standards in the materials. According to the Implementation Guide, "Fluency provides distributed practice with previously learned material. It is designed to prepare students for new learning by activating prior knowledge and bridging small learning gaps. Fluency routines are developed over time to support students in counting and calculating as they are used consistently across lessons and include activities such as choral response, Whiteboard Exchange, and Sprint. The implementation guide provides guiding questions and suggestions for fluency implementation. Additionally, fluency is expected as an end-of-the-year performance expectation but can be achieved at various points throughout the year. Students are provided multiple opportunities to support multi-digit multiplication fluency. Within Module 1, Lessons 7-11, students use the standard algorithm to multiply multi-digit numbers (LSSM 5.NBT.B.5). This fluency is scaffolded in the lessons. For example, in Lesson 7, students solve "4 times as much as 32,157" using strategies such as

			distributive, area model, and partial products. In Lesson 9, students multiply two- and three-digit numbers by two-digit numbers using the area model and relate the model to the standard algorithm. In Lesson 8, students engage in a daily Fluency activity of estimating products. For example, the teacher displays 19,352 x 3 ≈ ___ x 3, and students approximate a factor of 20,000 for an estimated product of 60,000. Fluency activities such as this evident in Module 1, Topic B prepares students for work with the standard algorithm of multi-digit multiplication as seen in Lessons 10 and 11. In Lesson 11, students use the standard algorithm of multiplication to solve "What number is 111 times as much as 2,222?" To maintain this fluency, students engage in fluency activities that are embedded in future Modules prior to the Launch of the Lesson. For example, in Module 2, Lesson 8, students independently demonstrate understanding of multiplying multi-digit whole numbers using the standard algorithm in problems such as 3,212 x 3. In Module 5, Lesson 22, students determine how many centimeter cubes are in 1 layer to find the volume of a right rectangular prism in the Fluency portion of the lesson (LSSM 5.MD.C.4).
	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	**Yes**	Materials are designed so that students spend sufficient time working with engaging applications. The materials provide practice with single- and multi-step contextual problems that develop the mathematics for the grade and engage

	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.		students in problem solving. The progression of the modules includes opportunities within the lessons to apply conceptual understanding and procedural skills within the context of real-world problems. Students answer questions in pairs, small groups, and whole groups where they justify and explain their reasoning. As students experience addition and subtraction of fractions in Module 2, Lesson 5's Launch section presents students with a non-routine problem where they analyze models that show like units, related units, and unlike units. The problem states, "Begin by showing 2/7 in the top model and 3/7 in the bottom model. What addition expression can we write to represent what we see in the model?" Students then engage in application where they apply adding fractions with like units to adding fractions with unlike units, such as 2/7 + 1/3 (LSSM 5.NF.A.1). In Module 2, Lesson 11, students solve addition word problems involving fractions with unlike denominators such as the following problem: "A banana muffin recipe uses 2 ⅓ cups of flour. A blueberry muffin recipe uses 2 ¾ cups of flour. How many cups of flour are needed to make both recipes?" (LSSM 5.NF.A.2a). In Module 2, Lesson 12, students solve real-world problems involving division of a unit fraction by non-zero whole numbers such as the following problem: "A family makes 3 pans of brownies for a bake sale. They plan to sell gift bags that each hold ½ of a pan of

			brownies. How many gift bags can the family make?" (LSSM 5.NF.B.7c). In Module 5, Lesson 24, students independently solve non-routine word problems involving volumes of right rectangular prisms in the Exit Ticket, such as the following problem: "A right rectangular prism has a volume of 450 cubic centimeters. What is one possible length, width, and height for the prism?" (LSSM 5.MD.C.5). Routine real-world problems addressing LSSM 5.MD.C.5 are also evident in Module 5, Lesson 26 as students solve problems such as "A pool is shaped like an L (with a diagram shown). A dog walks around the border of the pool. How far does the dog walk?"
	Required **3d)** ***Balance:*** The three aspects of **rigor** are not always treated together and are not always treated separately.	**Yes**	It is evident in the materials that the three aspects of rigor are not always treated together and are not always treated separately. The materials reflect the balance of rigor in the standards. The structure of the materials help students develop the concepts and skills necessary to build and apply math knowledge. The Lessons are structured into sections titled Fluency, Launch, Learn, and Land. The three components of rigor are found within different sections of the lesson, and the lessons align with the expectations of rigor within each standard. Procedural skills and fluency appear in each lesson in the opening Fluency activity. The Fluency component enables students to develop fluency with skills from all clusters. The Launch and Learn components engage students in both conceptual

			understanding and procedural skill and fluency. The Problem Set and Exit Ticket offer students the opportunity to independently apply their procedural skill and fluency, show their conceptual understanding, and solve applications such as word problems. In Land, students often engage in a discussion about their conceptual understanding of the student work. For example, in Module 3, Lesson 5, Fluency, Multiply Multi-Digit Whole Numbers, students write and complete a given equation by using the standard algorithm - 15 x 23 = _____ (5.NBT.B.5). In Module 4, Lesson 14, Fluency, students multiply a decimal number by a power of 10 (LSSM 5.NBT.A.2). Within Lesson 14, conceptual understanding of multiplying decimals is built as students use a place value chart to multiply a decimal number by a one-digit whole number then record their work in vertical form. The teacher is prompted to ask “Where do you see the regrouping in vertical form?” prompting a discussion to compare the place value chart to the standard algorithm (LSSM 5.NBT.B.7). In Module 6, Lesson 8, Fluency, students find the volume of right rectangular prisms (LSSM 5.MD.C.5a). In the Learn portion of the lesson, students use addition rules to generate coordinates, form ordered pairs, and plot the points on the coordinate plane. Students build conceptual understanding as they connect the relationship between two patterns and graphing data on a coordinate plane (LSSM 5.OA.B.3). In

			Module 5, Lesson 11, Classwork Problem 1, students identify the area of rectangles by partitioning a given rectangle and finding its side lengths (LSSM 5.NF.B.4).
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. ☒ Yes ☐ No	**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.	**Yes**	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. The materials support students' habits of mind based on the mathematical practices while also building conceptual understanding, developing fluency, and applying understanding. Margin notes in the teacher materials provide cues and connections to the work of the students and the Standards for Mathematical Practice. Each lesson in the modules has a section titled, "Promoting the Standards for Mathematical Practice," which identifies the mathematical practice standards present in the lesson. This section also provides context of where Grade 5 students should be in the progression of the mathematical practices. For example, in Module 2, Lesson 4, students make sense of problems and persevere in solving them (MP.1) as they interpret and solve real-world problems involving the division of whole numbers and work with fractions and mixed numbers (LSSM 5.NF.B.3). Students answer the following questions as they work through the problem: "What can you figure out about the situation in the problem by looking at the tape diagram?" "Does your answer make sense? Why?"

			and “How can you explain the problem in your own words?” In Module 3, Lesson 16, students look for and make use of structure (MP.7) as they compare the values of multiplication and division expressions. Students answer questions such as: “How are ½ divided by 4 and ¼ divided by 4 related?” “How can that help you compare the values of the expressions?” and “How can what you know about ½ and ¼ help you compare the values of ½ divided by 4 and ¼ divided by 4?” In Module 1, Lesson 9, students attend to precision as they decompose factors and find partial products when they multiply multi-digit numbers using the standard multiplication algorithm. Students answer questions such as: “How can you write the partial products when you use the standard algorithm?” and “Where might you make mistakes when you use the standard algorithm?” (LSSM 5.NBT.B.5). In Module 4, Lesson 8, students engage in MP.3 as they round numbers to the given place with a partner and ask for explanations of their peer if the answer provided does not seem to be correct. Students answer questions such as: “Is your answer a guess, or do you know for sure?” “If you know for sure, explain your reasoning.” and “What questions can you ask your partner to make sure you understand their reasoning?”
	Required **4b)** Materials provide sufficient opportunities for students to **construct viable arguments and critique the**	**Yes**	Materials provide sufficient opportunities for students to construct viable arguments and critique the arguments of others

	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.		concerning key grade-level mathematics that is detailed in the content standards. The lessons are structured with opportunities for students to engage in mathematical reasoning through discussion questions and prompts. The materials provide opportunities for students to form viable arguments and critique the arguments of others throughout the lessons. Lessons also include several routines designed to promote discourse. For example, students determine a misconception in sample work and then construct viable arguments to convince the teacher of the correct solution path or solution. The materials also provide opportunities for students to conduct error analyses. In Module 4, Lesson 8, students round decimal numbers to any place value unit. Within the lesson students engage in a partner activity. During the activity, students work on the problem, then pass it to their partner. The partner checks the work. If the student makes a mistake, the partner asks them to explain their thinking. The students continue to discuss the work until they agree on the correct answer. This activity allows students to critique the work and engage in mathematical reasoning through justification. In Module 6, Lesson 8, Debrief, the teacher facilitates a class discussion about addition rules for coordinates and addition and subtraction relationships between corresponding coordinates. Students answer questions such as: “Where can you see addition

			rules for coordinates of points in a table on a graph?" "How did you find the y coordinate in problem 1?" and "Why is it useful to know when x and y coordinates have an addition or subtraction relationship?" In Module 2, Lesson 16, students turn and talk about whether the claim that most of the pumpkins sold weighed more than 12 ¼ pounds is true based on the data in the given line plot. Students then answer the question, "Which parts of Mr. Sharma's claim do you question?" In Module 3, Lesson 8, students reason about the size of a product compared to the size of its factors as they multiply two fractions less than 1. Students respond to the question, "What questions can you ask your partner to make sure you understand their reasoning?" As students learn about the hierarchy of quadrilaterals in Module 5, Lesson 3, they justify their thinking and respond to their peers' thoughts during the Always Sometimes Never Routine by answering, "Can you find a situation where the statement is not true?" and "What questions can you ask your classmate to make sure you understand their thinking?"
	Required **4c)** Materials explicitly attend to the **specialized language** of mathematics.	**Yes**	Materials explicitly attend to the specialized language of mathematics. The materials use and encourage the use of accurate mathematical terminology as appropriate for the grade level. The Terminology Resource identifies the specialized language of mathematics that is used throughout a module. The

			resource lists New and Familiar terminology with definitions and descriptions from the module. Items in the New category are discipline-specific words that are introduced to students within the module. These items include the definition, description, or illustration as it is presented to students. Language Support margin notes embedded in the lessons provide guidance to teachers as they support students with the specialized language of mathematics. Each Module Overview and Module Assessment Description addresses the proper terminology for students to use as well as definitions for key terms. The sample dialogue in each lesson includes the terminology teachers should expect from their students when they answer questions or share their thinking. For example, Module 1 defines centigram, centiliter, dividend, exponent, exponential form, kiloliter, milligram, millimeter, and power of 10 in the New section. The terms centimeter, convert, distributive property, divisor, express, factor, kilogram, partial products, partial quotients, quotient, remainder, and standard algorithm are listed in the Familiar section. Analyze, consider, and evaluate are listed in the Academic Verbs section. Within the Teaching Guide for Module 5, Lesson 4, a box titled Teacher Note is found in the Construct a Rhombus section of the lesson. In the box, it states, “The plural forms of the word rhombus are rhombuses, which is the form used here,

			and rhombi, which is also correct. “Further in the lesson, another box titled Language Support: states, “If you created a quadrilaterals chart in previous lessons, consider reviewing familiar terms (parallel sides, supplementary angles, midpoint, right angles, and lines of symmetry) while gesturing to the appropriate visuals before beginning the discussion encouraging students to associate the word with the model.” Module 2 lists minuend and subtrahend as New terminology in Lesson 12. Within Lesson 12, the teacher states, “Let’s decompose the minuend, or the starting value, 5.” This gives students meaning of their new term without giving an explicit definition, but rather, using context of a given problem of 5 - 2 ¾. The teacher goes on with, “The subtrahend, or the number being subtracted from the starting value…” again providing context for students. The teacher encourages students to describe the subtraction expression using their new mathematical vocabulary as they attend to precision. In Module 4, Lesson 29, as students explore comparing two expressions, they learn the New term inequality. The teacher then directs students to label number sentences for Station 7 of the Learning as an equation or inequality.
	4d) There are teacher-directed materials that **explain the role of the practice standards** in the classroom and in students’ mathematical development.	**Yes**	Materials include teacher-directed materials that explain the role of the practice standards in the classroom and in students’ mathematical development. The materials provide a full explanation of the purpose and intent of the practice

			standards with in-lesson connections and context for instruction. Each lesson contains a section entitled “Promoting the Standards for Mathematical Practice” that links a specific practice standard to the content of the lesson. The section provides the context of the progression of the standard in the current grade level and in future learning. It provides a specific reference of the lesson activity that implements the practice standard. At the conclusion of each Module, when reviewing achievement descriptors and standards, mathematical practice standards are listed for each module. Within the Implementation Guide, the mathematical practices are explained and highlighted in the margin notes as they appear in specific lessons. Additionally, in the Implementation Guide, the grade level standards and practice standards are listed for educators as they are presented in all modules. In the section highlighting Lesson Facilitation, the guide describes effective delivery as “delivery that fosters student ownership and belonging. This curriculum supports this aspect by naturally presenting opportunities for students to practice the mathematical practice standards as they arise within the lessons.” In Module 1, Lesson 18 the Promoting the Standards for Mathematical Practice states, “Students reason abstractly and quantitatively as they write word problems that match tape diagrams and numerical expressions (MP2). Ask the following questions to

			promote MP2: What real-world situations are modeled by the tape diagram? What do the parentheses in the expression tell you about your word problem?" In Module 1, Lesson 15, the Promoting the Standards for Mathematical Practice states, "When students use the Read-Draw-Write process to create models to represent word problems and demonstrate methods for multiplication and division to solve the word problems, they are modeling with mathematics (MP4). Ask the following questions to promote MP4: What key ideas in this problem do you need to include in your model? How do you represent the key ideas in this problem in your model? How can you improve your model to better represent the problem?"
Section II: Additional Alignment Criteria and Indicators of Superior Quality			
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. ☐ Yes ☐ No	**Required** **5a)** Materials provide all students **extensive work** with grade/course-level problems.		See EdReports for more information.
	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.		
	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.		

	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.		
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. ☐ Yes ☐ No	**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.		
	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.		
	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.		
	6d) Materials provide 2-3 **comprehensive assessments** (interims/benchmarks) that measure student learning up to the point of administration.		
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 address students' unfinished	**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.		
	Required **7b)** The materials are **easy to use and well organized** for students and teachers. Teacher editions are concise		

learning in order to access grade-level work. ☐ Yes ☐ No	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.		
	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.		
	7d) Materials **identify prerequisite skills and concepts** for the major work of the grade/course, connected to the current on-grade/course-level work.	**Yes**	Materials identify prerequisite skills and concepts for the major work of the grade. In the Module Overview, margin notes titled, "Before This Module," provide prerequisite skills from previous grades or earlier in the current grade students need to be successful. As an additional purchase, the Eureka Math² Equip provides tools that help identify and support students with unfinished learning. As part of Equip, the Pre-Module Assessment Overview lists essential foundational knowledge needed to access current grade-level content. For example, the Equip Module 1: Place Value Concepts for Multiplication and Division with Whole Numbers identifies essential foundational knowledge needed to access the content within Module 1 such as, "Explain the relationship between a digit in a multi-digit whole number and the same digit in the place to the right." "Read and write multi-digit whole numbers in unit, standard, word, and expanded form." "Add and subtract multi-digit whole

			numbers by using the standard algorithm." and "Add and subtract multi-digit whole numbers by using the standard algorithm." In Module 3, Before This Module states, "In grade 4, module 4, students decompose a non-unit fraction as a sum of unit fractions and then write the sum as a product of a whole number times a unit fraction. They solve word problems involving multiplication of a fraction by a whole number and express answers as fractions and mixed numbers." In Module 5, Lesson 7, the Language Support Box states, "Students classify triangles in grade 4. Activate prior knowledge about triangles by reviewing types of triangles, with visuals of each type, before presenting the triangle Venn diagram. A right triangle is a triangle that has a right angle. An acute triangle is a triangle that has all acute angles. An obtuse triangle is a triangle that has an obtuse angle. An isosceles triangle is a triangle with at least 2 sides of equal length. Note that an equilateral triangle is also an isosceles triangle. An equilateral triangle is a triangle with all sides of equal length."
	7e) Materials provide guidance to help teachers **identify students** who need prerequisite work to engage successfully in core instruction, on-grade/course-level work.	**Yes**	Materials provide guidance to help teachers identify students who need prerequisite work to engage successfully in core instruction. The Implementation Guide references that Pre-Module Assessments are available with Eureka Math Squared Equip to identify and support students' unfinished learning. The Pre-Assessments "focus on assessing foundational knowledge essential to the

			content of the upcoming lesson." The Pre-Module Assessment reports provide data to identify student-specific needs. The goal of the pre-assessment is to clearly identify which students need to engage in supporting content before, or during, grade-level instruction for each module.
	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.	**Yes**	Materials provide targeted, aligned, prerequisite work for the major work of the grade directly connected to specific lessons and units in the curriculum. The materials include four Pre-Module Assessments that target foundational, prerequisite knowledge for the upcoming modules. The Pre-Module Assessments results used along with the Equip User Guide provide specific activities to provide timely remediation for the current module. Teachers are guided to analyze the results after a pre-assessment is administered. Each item in the Pre-Assessment corresponds to at least one Supporting Activity that can be used to meet the needs of students who require prerequisite work. The Equip User Guide provides information for the Supporting Activity that corresponds to each item in the Pre-Module assessment, such as explanations of why the knowledge is foundational to the module, when specifically in the module the knowledge will be needed, and where in the module there is lesson-embedded practice with the foundational knowledge. For example, for Module 1, Item 1 of the Pre-Assessment references lessons that address foundational content, such as

			Grade 4, Module 1, Topic B, Lesson 6. In addition, a Supporting Activity is provided that aligns with the foundation content for the Pre-Assessment item. Further in the guide, materials provide explanations of why the knowledge is foundational to the module, when specifically in the module the knowledge will be needed, and where in the module there is lesson-embedded practice with the foundational knowledge.
	7g) Materials provide **clear guidance and support** for teachers about the structures that allow students to appropriately address unfinished learning using prerequisite work.		See EdReports for more information.

FINAL EVALUATION

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.

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 Quality[5]	1. Focus on Major Work	**Yes**	Materials devote a large majority of time to the major work of the grade. Materials spend minimal time on content outside of the appropriate grade level. In assessment materials, assessment components do not make students/teachers 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 and/or two or more domains in the grade level where

[5] Must score a "Yes" for all Non-negotiable Criteria to receive a Tier 1 or Tier 2 rating.

			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-level content and is meaningfully present throughout the materials. Materials provide sufficient opportunities for students to construct viable arguments and critique the arguments of others concerning key grade-level mathematics that is detailed in the content standards. Materials explicitly attend to the specialized language of mathematics. 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 Quality[6]	5. Alignment Criteria for Standards for Mathematical Content		See EdReports for more information.
	6. Quality of Assessments		See EdReports for more information.

[6] Must score a "Yes" for all Additional Criteria of Superior Quality to receive a Tier 1 rating.

	7. Additional Indicators of Quality		Materials identify prerequisite skills and concepts for the major work of the grade when applicable. Materials provide guidance to help teachers identify students who need prerequisite work to engage successfully in core instruction. Materials provide targeted, aligned, prerequisite work for the major work of the grade directly connected to specific lessons and units in the curriculum.
FINAL DECISION FOR THIS MATERIAL: **Tier 1, Exemplifies quality**			

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 2021-2022 Teacher Leader Advisors are selected from across the state and represent the following parishes and school systems: Acadia, Ascension, Baton Rouge Diocese, Beauregard, Bossier, Calcasieu, Central Community, City of Monroe, Desoto, East Baton Rouge, East Feliciana, Evangeline, Franklin, Iberia, Jefferson, Lafayette, Lafourche, Lincoln, Livingston, Louisiana Tech University, Louisiana Virtual Charter Academy, Orleans, Ouachita, Rapides, Regina Coeli Child Development Center, Richland, Special School District, St. Charles, St. John, St. Landry, St. Martin, St. Mary, St. Tammany, Tangipahoa, Terrebonne, University View Academy, Vermillion, West Baton Rouge, and West Feliciana. This review represents the work of current classroom teachers with experience in grades K-5.

Appendix I.

Publisher Response

The publisher had no response.

Appendix II.

Public Comments

There were no public comments submitted.