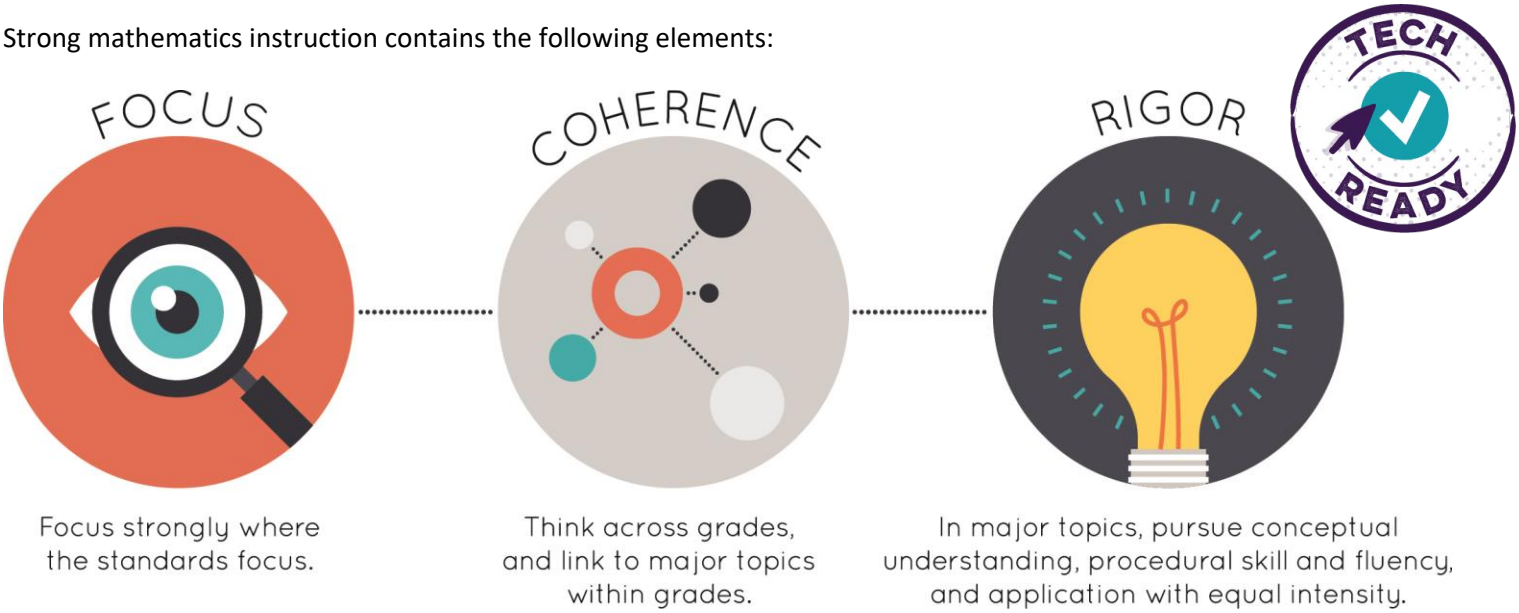
Instructional Materials Evaluation Tool for Alignment in Mathematics Grades K – 12 (IMET)

FULL CURRICULUM
Instructional Materials

Strong mathematics instruction contains the following elements:



Title: **Zearn Math**

Grade/Course: **1-5**

Publisher: **Zearn**

Copyright: **2023**

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

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

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

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

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:

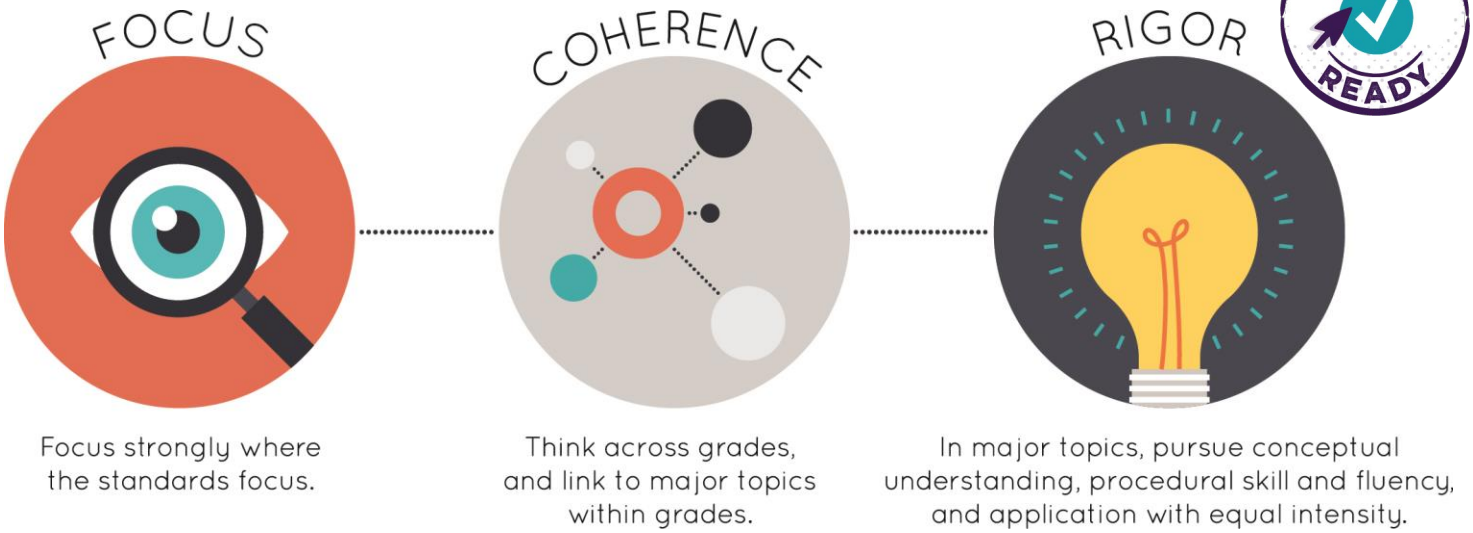
Grade 1 (Tier 1) Grade 2 (Tier 1) Grade 3 (Tier 1) Grade 4 (Tier 1) Grade 5 (Tier 1)

DEPARTMENT of EDUCATION
Louisiana Believes

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

FULL CURRICULUM
Instructional Materials

Strong mathematics instruction contains the following elements:



Title: **Zearn Math**

Grade/Course: **1**

Publisher: **Zearn**

Copyright: **2023**

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

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

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

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

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

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

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

Tier 1 ratings receive a "Yes" for all Non-negotiable Criteria and a "Yes" for each of the Additional Criteria of Superior Quality.
Tier 2 ratings receive a "Yes" for all Non-negotiable Criteria, but at least one "No" for the Additional Criteria of Superior Quality.
Tier 3 ratings receive a "No" for at least one of the Non-negotiable Criteria.

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
Section I: Non-negotiable Criteria of Superior Quality: Materials must meet Non-negotiable Criteria 1 and 2 for the review to continue to Non-negotiable Criteria 3 and 4. Materials must meet all of the Non-negotiable Criteria 1-4 in order for the review to continue to Section II.			
Non-negotiable **1. FOCUS ON MAJOR WORK[2]:** Students and teachers using the materials as designed devote the large majority[3] 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 153 lessons, 90% are spent on major work of the grade. Specifically, 84% of lessons are spent on major standards, 6% are spent on a combination of major standards and supporting/additional standards, 8% are spent on supporting or additional standards, and 2% 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. All of the lessons within the materials relate to the work of the Grade 1 Louisiana Student Standards for Mathematics (LSSM). At times, materials review content from prior grade levels, but the review is used to connect previous learning to grade-level learning and does not take away from the focus of the on grade-level coursework. Some lessons in Mission 1 include Grade K LSSM but work towards proficiency of Grade 1 LSSM. For example, Lessons 2-5 address LSSM K.CC and K.OA standards but support students

[2] For more on the major work of the grade, see Focus by Grade Level.
[3] The materials should devote at least 65% and up to approximately 85% of class time to the major work of the grade with Grades K–2 nearer the upper end of that range, i.e., 85%.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			in working towards proficiency of LSSM 1.OA.C.5. In Mission 3, Topic C, students measure objects using two different non-standard units (LSSM 1.MD.A.2). Students answer the question, "If Bailey uses big paper clips and Maya uses small paper clips, and they both measure things in our classroom, will they be able to compare their measurements?" Big and small paper clips are used to measure one object so students can understand the importance of measuring objects with the same unit. Mission 3, Topic C closes with students solving "compare with difference unknown" problems (LSSM 1.OA.A.1). Students use standard units to answer such questions as, "How much longer is the pencil than the marker?" Throughout Mission 4, students work with place value within 20 and develop an understanding of the role of place value when adding and subtracting. In Topic A, students represent numbers to 40 in various ways and use a place value chart to organize units. For example, the number 29 can be written as 2 tens and 9 ones or 29 ones. Students organize the number 29 in their place value chart by drawing 2 tens and 9 ones (LSSM 1.NBT.B.2). In Topic D of Mission 4, students use strategies to add two-digit and single-digit numbers within 40 (LSSM 1.NBT.C.4). For example, when adding 28 + 5, students break 5 into 2 and 3 so that 28 and 2 make the next ten, which is 30, or 3 tens, and then add 3 to make 33.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			There are two assessments provided for each Mission, a Mid-Mission Assessment and an End-of-Mission Assessment, both of which only assess grade-level standards. On the End-of-Mission Assessment, students solve the following problem: "There were 5 boys at Jake's party. Some more came after basketball practice. Then, there were 9. How many boys came to Jake's party after basketball practice?" To solve the problem, students first draw a picture and a number bond, then write an addition sentence to represent the model (LSSM 1.OA.A.1, LSSM 1.OA.C.5, LSSM 1.OA.C.6). On the End-of-Mission Assessment for Mission 4, students use <, >, or = to compare "3 tens" to "25 ones" and "1 ten 14 ones" to "2 tens 4 ones" (LSSM 1.NBT.B.2, LSSM 1.NBT.B.3).
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. The materials spend time developing major work of the grade and use lessons addressing supporting standards to reinforce major standards. In Mission 3, Topic D, students represent and interpret data. Students collect data about their classmates and sort the information into three categories. Then students represent the sorted data using same-sized pictures on squares so that they can compare and describe the results. Students interpret the information from

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			the graphs by first determining the number of data points in a given category, then combining categories. Students answer questions such as, “How many students like carrots the best?” and “How many total students like carrots or broccoli the best?” (LSSM 1.MD.C.4). In Topic D, Lesson 13 of Mission 3, students answer questions about data sets, such as “How many students were polled in all?” and “How many more students preferred broccoli to string beans?” utilizing strategies such as put together with result unknown and compare with difference unknown (LSSM 1.OA.A.1). Mission 4, Lesson 6 introduces the dime as a representation of tens and the penny as a representation of ones. Students develop an understanding of the value of a dime and penny. A dime represents a bundle of ten and a penny represents one (LSSM 1.MD.D.5). Students show the number 15 using 1 dime and 5 pennies (LSSM 1.NBT.A.2). Students have the opportunity to connect between the familiar representations of tens and ones to the dime and the penny and work to find 10 more, 10 less, 1 more, and 1 less (1.NBT.C.5). Mission 6, Topic E, Lessons 20-24 focus on coins and their value. During the lessons, students consider different ways to represent a value of ten by using 1 dime, 10 pennies, as well as 2 nickels (LSSM 1.MD.D.5). In Lesson 20, students make different coin

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			combinations to make 25 cents using a combination of dimes and pennies, dimes and nickels, and nickels and pennies (LSSM 1.NBT.C.2).
	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, Mission 1, Topic E connects Clusters B (Understand and apply properties of operations and the relationships between addition and subtraction) and D (Work with addition and subtraction equations) of the Operations and Algebraic Thinking (OA) domain. In Lesson 17, students develop an understanding of the meaning of the equal sign by pairing equivalent expressions and constructing true number sentences (LSSM 1.OA.D.7). Students determine if 4 + 1 = 3 + 2 is a true number sentence. Throughout the lesson, students gain an understanding of the equal sign and that the equal sign means “the same as.” Students determine that 4 + 1 = 3 + 2 is true because both 4+ 1 and 3 + 2 are the same value as the number 5 (LSSM 1.OA.B.3). In Lesson 19, students use the commutative property to represent the same story scenarios with addends repositioned (LSSM 1.OA.B.3). For example, students write a number sentence to find the total number of students when there are 5 girls and 3 boys.. Students write another number

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			sentence with the total number of boys first and determine that the total will not change if they change the order of the boys and girls (LSSM 1.OA.D.7). Mission 4, Topic F connects Clusters B (Understand place value) and C (Use place value understanding and properties of operations to add and subtract) of the Number and Operations in Base Ten (NBT) domain. During the topic, students begin adding like units within pairs of two-digit numbers. In Lesson 23, students interpret numbers such as 25 as 1 ten and 15 ones, as well as 2 tens and 5 ones and as 25 ones (LSSM 1.NBT.B.2). During Lesson 24, students apply this understanding as they add sets of two-digit numbers, where the ones digits produce a sum less than or equal to 10. For example, when adding 17 + 13, students decompose the second addend into 10 and 3. They then add 10 to 17, making 27, and then add the remaining ones. In Lesson 25, students also practice adding ones to the first addend and then adding the remaining ten (LSSM 1.NBT.C.4). The Number and Operations in Base Ten (NBT) and Operations and Algebraic Thinking (OA) standards are connected in several lessons. For example, in Mission 2, Topic D, Lessons 26-29, students decompose teen numbers as 1 ten and some ones. Each of these lessons involves thinking of ten as a bundles of 10 ones (LSSM 1.NBT.B.2a), understanding that a two-

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			digit number is composed of a ten and some ones (LSSM 1.NBT.B.2b), and solving problems involving situations of putting together and taking apart (LSSM 1.OA.A.1). In Lesson 27, students solve the following problem: "Ronnie has 8 stickers that are stars. Her friend Sina gives her 7 more. How many stickers does Ronnie have now?" (LSSM 1.OA.A.1) and students provide their answers as "__ tens and __ ones." (LSSM 1.NBT.B.2).
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. The materials include high-quality conceptual problems and discussions. Students develop conceptual understanding over time, and the materials include several opportunities for students to demonstrate their conceptual understanding. The materials adhere to the expectation of conceptual understanding where appropriate and in alignment with the standards. Throughout the materials, students build conceptual understanding through the use of concrete and digital manipulatives, multiple means of representation, multiple strategies, sentence frames, tools, and templates. In addition, students build conceptual understanding with their teacher and peers in the Collaborative Concept Exploration through mathematical discourse, as well in the self-paced Independent Digital Lessons.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			Student understanding is expressed in multiple ways, such as through creating models, critiquing the arguments of others, and interpreting solutions to problems. For example, in Mission 2, students use various strategies and apply properties of operations to add and subtract within 100. Students begin the Mission with counting on or making ten to solve result unknown and total unknown problems, then use strategies for solving change or addend unknown problems, then progress to decomposition and composition strategies (LSSM 1.OA.B.3, 1.OA.C.6). For example, in Lesson 1, students develop an understanding of adding using the associative property as they add 9 triangles, 4 trapezoids, and 1 square. Students determine that it makes sense to group the 9 triangles and 1 square to make a ten and then count on using the 4 trapezoids to find the total of 14 blocks. In Lesson 2, students use the associative and commutative properties to make ten with three addends. Students draw to solve the problem and, by the end of the lesson, determine that the order or grouping does not change the total in problems such as 5 + 3 + 5 and 7 + 3 + 5. Students continue developing this understanding with various strategies, such as making ten when one addend is 9 in Lessons 3-5 and making a ten when one addend is 8 in Lessons 7-9. Later, in Lesson 27, students solve addition and

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			subtraction problems, decomposing and composing numbers as 1 ten and some ones using counting sticks, number bonds, and number sentences. In Mission 5, Topic A, students identify the defining attributes of two- and three-dimensional shapes, building on their Grade K experiences of sorting, analyzing, comparing, and creating various two- and three-dimensional shapes and objects (LSSM 1.G.A.1). In Lesson 1, students use straws to create and describe two-dimensional shapes without naming them. As students create various closed shapes with three sides, they discuss and record the attributes, such as three straight sides and three corners. They continue this same structure for shapes with 4, 5, 6, and 7 straight sides in addition to open figures and shapes with no straight sides. In Lessons 2-3, students name two- and three-dimensional shapes and find them in pictures and in their environment. In Mission, Lesson 6, students practice comparing numbers using the symbols >, =, and <. They compare numbers such as 65 and 75, as well as numbers in various unit form combinations such as 7 tens 5 ones, 5 ones 7 tens, and 6 tens 15 ones (LSSM 1.NBT.B.3). As students compare two-digit numbers, they deepen their understanding of equality and place value.
	Required **3b)** ***Attention to Procedural Skill and Fluency:*** The materials are designed so that students **attain the**	**Yes**	Materials are designed so that students attain the fluencies and procedural skills required by the standards. The materials

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
	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.		are designed in a way that procedural skill and fluency are acquired through a progression of learning over time and throughout the course of the materials. Students begin every lesson with a warm-up, Fluency Practice that provides students the opportunity to strengthen procedural fluency. During Fluency Practice, students practice previously learned skills and prepare to extend those skills in the current lesson. Every Independent Digital Lesson includes the Number Gym, which engages students in individually adaptive fluency practice. In addition, each Independent Digital Lesson also includes a fluency-aligned activity, such as Sprints, Pair Compare, Mix and Match, and Blasts. The fluency practices coincide with the lessons and connect with the appropriate standards. The materials also provide several opportunities to build procedural skills by offering optional problem sets and homework problems. The required fluency for Grade 1 is to add and subtract within 10 (LSSM 1.OA.C.6). Students work towards building fluency with addition and subtraction across Mission 1. In Topic A, students develop strategies from counting all to counting on and putting together. Students practice fluency for addition and subtraction within 10 during Independent Practice and Optional Problem Sets and Homework in the lessons across Topic A. In Topic B, Lesson 7, after engaging in

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			Number Gym, students complete two rounds of a Blast, attempting to beat their original score in round 2. The students solve 5 missing addend problems. Upon completion, students check their work to see which problems were answered correctly and incorrectly and retry the problems they answered incorrectly. Mission 1, Topic F continues with more efficient strategies coupled with deep understanding to solve addition problems within 10. In Lesson 21, students begin to internalize doubles and doubles plus 1 as they work with visual representations of these problems. For example, students are tasked to solve 3 + 4. Students can use the doubles fact 3 + 3 = 6 and then add 1 more to equal 7. So, 3 + 4 = 7. Students demonstrate fluency in addition within 10 as they solve several additional problems during Independent practice and Optional Problem Set and Homework. As the students work through each Mission, several of the fluency activities at the start of the lessons provide students more practice towards building fluency with addition and subtraction within 10. In Mission 6, Topic D, students apply place value understanding to add pairs of two-digit numbers to sums within 100 (LSSM 4.NBT.C.4). The learning progresses over time as students practice fluency over six lessons. For example, in Lesson 11, students add a multiple of ten to two-digit numbers within 100 using various

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			methods such as place value charts, number bonds, and number sentences. Students practice fluency with addition by solving problems such as 50 + 38, 63 + __ = 93, and __ + 40 = 98. In Lessons 13, 14, and 16, students add a pair of two-digit numbers when the ones digits have a sum greater than 10. Students use a variety of strategies to solve problems, such as 49 + 12, 59 + 22 and 54 + 38. Students practice fluency with addition within 100 during Independent practice and Optional Problem Set and Homework.
	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. Throughout the materials, problems provide students the opportunity to apply their conceptual understanding and/or procedural skills in a real-world context in which students model, reason, and justify responses to demonstrate their understanding. For example, in Mission 1, Lesson 28, students complete word problems using a picture, number bond, number sentence, and word sentence. Students solve the following problem: “I had 6 eggs from the store. Three of them were cracked. How many eggs did I have that were not cracked?” (LSSM 1.OA.A.1). In Mission 2, Topic A, students solve word problems with three addends as a way for them to explore the make ten strategy in a meaningful context. For example, in Lesson 2, Word Problem, students solve

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			the following problem: "Lisa was reading a book. She read 6 pages the first night, 5 pages the next night, and 4 pages the following night. How many pages did she read?" (LSSM 1.OA.A.2). In Mission 3, Lesson 10, students organize, represent, and interpret data about themselves and answer questions about the data. The class gathers data about their favorite book titles, represents the data on a table using sticks as tally marks, and then answers questions about the data, such as "How many students liked Book A the most?" and "Which book is liked by our classmates?" During the Exit Ticket, students complete the following task: "A group of students were asked what they ate for lunch. Use the data below to answer the following questions." Using the data, students answer questions such as "What is the total number of students who ate pizza?" and "What lunch was eaten by the greatest number of students?" (LSSM 1.MD.C.4).
	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 address the various aspects of rigor appropriately, depending on the standard expectations and the balance needed to address the rigor component of the standard. For example, in Mission 2, Lesson 26, students further develop conceptual understanding of place value as they identify 1 ten as a

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			unit by renaming representations of 10 (LSSM 2.NBT.B.2a). They review representations of 10 ones and relate the Rekenrek bracelet to the ten frame and fingers on two hands to two 5-groups as 1 ten. They connect teen numbers to unit form, such as 1 ten and 4 ones. Mission 3, Lesson 2 integrates conceptual understanding and procedural skill and fluency. During the lesson, students draw a picture to understand the measurements given in problems such as: "Sammy is taller than Dion. Janell is taller than Sammy. Dion is (taller than/shorter than) Janell." Students then complete the comparison (LSSM 1.MD.A.1). Mission 4, Lesson 23 addresses both LSSM 1.NBT.B.2 (conceptual understanding) and LSSM 1.NBT.C.4 (procedural skill and fluency). In this lesson, students match 2 tens 14 ones to 3 tens 4 ones and tell if 33 is the same as 2 tens 23 ones. As students solve problems in the lessons, they apply their understanding of place value (LSSM 1.NBT.B.2) and add multiples of 10 (LSSM 1.NBT.C.4). Mission 3, Lessons 10-13 integrates all three components of rigor as students collect, sort, organize data, and interpret data, ask and answer questions about data, and solve varied word problems about data (LSSM 1.MD.C.4). For example, in Lesson 12, students solve the following problem: "Kingston's class took a trip to the zoo. He collected data about his favorite African animals. He saw 2

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			lions, 11 gorillas, and 7 zebras. What might his table look like? Write one question your classmate can answer by looking at the table."
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 the students' development of the math practices, contributing to students' habits of mind as they develop fluency, procedural skills, and conceptual understanding. The materials are clearly designed in a way that connects the practice standards and content standards. The practice standards are not taught in isolation and are taught to the full meaning of the standards. For example, in Mission 1, Lesson 19, students attend to precision (MP.6) as they represent the same story scenario with repositioned addends (LSSM 1.OA.B.3). For example, 3 boys and 5 girls stand in front of the class. Students write a number sentence to find the total starting with the boys, then write a number sentence to find the total starting with the girls. Students then use 4 red counters and 3 white counters to make two number sentences to represent the total counters, then explain to their partner why the total is the same. A sample response includes, "The number of reds and whites did not change. We can add them in any order, as long as we

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			include them all." In Mission 4, Lesson 17, students add ones to ones or ones to tens using connecting cubes and quick tens (MP.4). For example, when adding 19 + 2, students decide whether to add 2 to the ones or to the tens and explain why (LSSM 1.NBT.C.4). Students determine that adding to the ones makes more sense, since 19 needs 1 more to make the next ten. Students then represent their work in quick ten drawings. As students continue practicing, they represent one problem they solved by drawing a picture and another problem with a number bond. Students then discuss what strategy they used to solve the problems and why with their partners (MP.3).
	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 detailed in the content standards. Throughout each Mission, students have the opportunity to critique problems, correct work, and justify their reasoning. During the Wrap-Up of each section, students answer questions to synthesize the lesson, using the opportunity to engage in mathematical reasoning and defend their rationale. For example, in Mission 2, Lesson 16, students answer: "We used our pretend fingers to show the take from ten strategy. How is this like counting on? What did we do to make our count on strategy more efficient? Look at

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			Problem 5. Which strategy did you choose for each problem? Explain your reasoning." In Mission 4, Lesson 9, students answer: "Can there be more than one answer? Why?" In Mission 4, Lesson 10, students answer: "How are the strategies you use for these two problems different?" In Mission 4, Lesson 23, students critique the reasoning of others as they solve the problem: "Lee says that 35 is the same as 2 tens 15 ones, and Maria says that 35 is the same as 1 ten and 25 ones." Students determine who is correct and justify their reasoning. In Mission 2, Lesson 11, Problem Set, students read the following problem: "Jeremy had 7 big rocks and 8 little rocks in his pocket. How many rocks does Jeremy have?" Students circle all student work that correctly matches the problem and then fix incorrect work by making a new drawing with the matching number sentence.
	Required **4c)** Materials explicitly attend to the **specialized language** of mathematics.	**Yes**	Materials explicitly attend to the specialized language of mathematics. The Course Guide describes Mathematical Language Routines (MLR) that are used throughout the materials to support students' mathematical language development while they learn mathematical practices and content. The guide states that the feedback generated by the routines helps "students revise and refine not only the way they organize and communicate their own ideas, but also ask

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			questions to clarify their understanding of others ideas." For example, the purpose of the MLR3: Clarify, Critique, and Correct is to provide students the opportunity to analyze, reflect on, and develop "a piece of mathematical writing that is not their own." The purpose of MLR5: Co-craft Questions is to help students explore content before producing answers, to create "the language of mathematical questions themselves" and to "analyze how different mathematical forms and symbols can represent different situations." In addition, each Mission Overview includes a list of "New or Recently Introduced Terms" along with "Familiar Terms and Symbols" with definitions that students use across the Mission. For example, Mission 5 introduces students to half/halves/half of, fourth of/fourths, and quarter of. In Lesson 5, students apply their understanding of this terminology as they "color 1 fourth of this square," "color a quarter of this circle," and "color half of this rectangle." In Mission 2, Lesson 3, students make a ten when 1 addend is 9. Students use mathematical language throughout the lesson as they explain their thinking. For example, students represent the following problem using connecting cubes: "Maria has 9 snowballs, and Tony has 3. How many do they have altogether?" After students determine that they can count on to solve the

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			problem, the teacher asks, "Is there a way to make a ten with the amounts we have in front of us?" A sample student response states: "I made ten by moving 1 red cube to the green pile. I had 9 cubes in that pile, but now I have 10." Students continue to attend to the specialized language of mathematics as the teacher asks questions such as: "Look at your new piles. What is our new number sentence?" and "So, 9+3 is the same as what addition expression?"
	4d) There are teacher-directed materials that **explain the role of the practice standards** in the classroom and in students' mathematical development.	**No**	Materials do not include teacher-directed materials that explain the role of the practice standards in the classroom and in students' mathematical development. The Course Guide states that the materials provide students "regular opportunities to engage in and develop the Standards for Mathematical Practice" and that the MLRs support students' development of the practices. However, explicit teacher guidance is not provided at the lesson level to support teachers in ensuring that students develop the practices and understand the correlation between the content standards and the mathematical practices.
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	**Required** **5a)** Materials provide all students **extensive work** with grade/course-level problems.	**Yes**	Materials provide all students extensive work with grade-level problems. Students engage in whole group and/or small group lessons with the teacher and their peers, followed by a self-paced Independent Digital Lesson. During the whole/small

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
grades/courses by staying consistent with the progressions in the Standards. ☒ Yes ☐ No			group lessons, students engage in a Warm-Up activity, a Concept Exploration, and a Wrap-Up activity. During the Concept Exploration, the teacher facilitates mathematical discourse among students as they move through a series of scaffolded math problems that progress towards the overall objective of the lesson. In the Independent Digital Lesson, students continue to explore and develop concepts during Guided Practice and apply what they learn in the Independent Practice section of the Digital Lesson. Students can also complete a Bonus section that addresses the focus standard of the lesson. The class then engages in a Lesson Synthesis as the teacher guides students through discussion to process their learning and to "surface any misconceptions or misunderstandings." This activity is followed by an Exit Ticket in which students demonstrate their understanding of the lesson. The materials also include Optional Problem Sets and Optional Homework for additional practice with lesson content. For example, in Mission 3, Lesson 6, students "order, measure, and compare the length of objects before and after measuring with centimeter cubes, solving compare with difference unknown word problems." After the Concept Exploration in both the whole group and Digital Lesson, students complete the Tower of Power activity in the Independent Practice section of the

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			Digital Lesson. Students complete several problems to demonstrate their understanding of the lesson content, which is adaptive and based on their ability to complete the problems correctly. Students have the option to complete the Bonus section of the Digital Lesson, as well. Students then complete an Exit Ticket that includes a three-step compare with difference unknown problem. The Problem Set includes additional problems for students to apply their learning. The first problem includes a four-part question about measuring length, followed by a seven-part question in the second problem, and three additional word problems about measuring length. The Optional Homework for the lesson includes an additional eleven problems.
	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.	**Yes**	Materials relate grade-level concepts explicitly to prior knowledge from earlier grades and courses and are designed so that prior knowledge is extended to accommodate new knowledge. Lessons are appropriately structured and scaffolded to support student mastery. Each Mission consistently relates lesson content to previous grade-level material and standards in a way that helps the student progress to meet the current grade-level standards. In the Fluency portion of each lesson, students access prior knowledge before beginning grade-level work in order to prepare for practicing and extending their knowledge

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			during the lesson. The small group session coupled with the Digital Lesson supports student proficiency of grade-level standards by connecting and extending prior knowledge to assist students in accessing grade-level content. The materials begin with adding and subtracting small numbers before moving on to include larger numbers and progress to adding and subtracting within 100, reflecting the progression consistent within the standards. In Mission 4, Lesson 4, students decompose and compose two-digit numbers as addition equations (LSSM 1.NBT.C.4). Students write the number when given an equation and write the equation when given the number, developing the understanding that the equation and the number represent the same value, such as “34 is the same as 30 + 4.” In Grade K, students decompose numbers less than or equal to 10. Students use this prior knowledge of decomposing single-digit numbers to help them to decompose two-digit numbers as tens and ones. In Mission 5, students build on their knowledge of shapes from Grade K. In Topic A, students identify the defining attributes of individual shapes, then students build upon this understanding in Lesson 2 as they find and name two-dimensional shapes based on defining attributes of sides and corners (LSSM 1.G.A.1).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
	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.	**Yes**	The materials prompt students to produce answers in a variety of ways. Throughout the lessons, students use concrete and digital manipulatives, various models, and pictorial representations. Students create models, such as number bonds, tape diagrams, and arrays, to represent solutions in a variety of ways. Students answer questions and provide explanations and/or justifications to support their answers. The materials provide opportunities throughout the lessons for students to construct arguments and provide explanations. Throughout Mission 4, students model mathematics in various ways. While problem solving, students use tape diagrams, drawings, and number sentences to model situations and solutions when adding within 100. In Lessons 20-21, students explore number relationships as they solve put together/take apart with addend unknown and add to with change unknown word problems within 20. As they do so, they explore number relationships and discuss how the size of the boxes relates to the size of each part. For example, when adding 12 + 4, students notice that the part in their tape diagrams that contains 12 is much longer than the part that contains 4. They also notice that, when adding 10 + 10, the two parts are the same size. During these lessons, students share their strategies for

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			drawing when a part is unknown. For example, students solve the following problem: “Maria has 15 playing cards in her hand. She has 8 black cards. If the rest are red, how many red cards does she have?” To solve the problem, students may draw all 15 cards first and then place a box around the 8 black cards Maria already has, may draw the 8 black cards, and then count on as they draw to 15, or may label 15 for the total, draw one part labeled 8, and then work toward identifying the missing part.” Throughout Mission 3, students describe and explain their process of finding accurate length measurements and challenge each other to measure precisely. For example, in Lesson 5, students lay centimeter cubes alongside a ruler, recognizing the meaning of the numbers on the ruler as a description of the number of centimeter length units up to that number. Students explore the question, “Why would we use a standard unit to measure?” Students engage in standard unit measurement in order to develop an understanding of why and how to measure. In Mission 5, Lesson 1, students determine the number of corners and straight sides of each shape. In Lesson 3, students match three-dimensional shapes to their names, tell whether statements about the shapes are true or false, and write sentences to explain their answers. In Mission 5, Lesson 6, students follow specific criteria to make

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			a structure using three-dimensional shapes.
	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.	**Yes**	Materials include support for English Learners and other special populations. Materials are accessible for all learners and include teacher guidance to help support English Language Learners. In addition, each Mission provides a link to materials in Spanish for the Mission Overview, Fluency, word problems, small group lessons, assessments, Student Notes and Exit Tickets, Optional Problem Sets, and Optional Homework Assignments. The lessons include audio support for students during the Independent Digital Lessons, in addition to the closed captioning feature. Visual supports appear throughout the lessons in Number Gym, Math Chat, Tower of Power, and Bonus. The assessments available in Spanish allow the teacher to assess students' understanding of the standards without language barriers. The Course Guide describes Design Features That Support All Learners, such as consistent lesson structures, concepts developing over time from concrete to abstract, opportunities to apply mathematics to real-world context, access strategies, and physical math manipulatives. Accessible design features are included for students with disabilities, such as visual clarity through use of color, color contrast, font readability, volume consistency, assistive

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			technology, including text-to-speech, screen readers, and Braille Translation Software, keyboard accessibility, and instructional accommodations, including translation materials, guided notes, graphic organizers, read aloud, scribe, separate location or quiet place, breaks, checklists and other self-monitoring activities, and physical math manipulatives. Multiple Means of Representation, Engagement, and Action and Expression sections are provided throughout the lessons to support all learners.
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.	**Yes**	Multiple assessment opportunities are embedded into content materials that measure student mastery of standards that reflect the balance of the standards as presented in materials. Every Mission includes a Mid-Mission and an End-of-Mission Assessment that address the focus standards. The Mission-level assessments assess student understanding of content for the Mission. Level-lesson assessments include the digital Tower of Power and paper-based Exit Tickets. The Tower of Power is a scaffolded assessment that focuses on the content of the lesson and is administered at the end of each Independent Digital Lesson. The assessment adapts to the students based on their ability to answer all the questions correctly. The Exit Tickets also focus on the content of the lesson and are administered at the close of each lesson.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
	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.	**Yes**	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-appropriate way. The materials give students a variety of opportunities to use procedural skills, fluency, and mathematical reasoning in real-world situations on the Exit Tickets and the assessments provided in each of the seven Missions. The assessment items are aligned with the components of rigor. Within the assessments, students provide explanations, use precision in mathematical statements, and utilize various models. For example, on the Mission 6, Mid-Mission Assessment, students solve the following problem, which reflects the application component of LSSM 1.OA.A.A.1: “Lucy has 5 pencils. Kim has 7 pencils. How many more pencils does Kim have than Lucy? Explain your solution using words, pictures, or numbers. Write your statement on the lines.” On the Mission 4 End-of-Mission Assessment, students compare values using the symbols, >, <, or = (LSSM 1.NBT.B.3). Students compare numbers in a variety of forms, such as 3 tens and 25 ones, 33 and 2 tens 12 ones, and 1 ten 14

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			ones and 2 tens and 4 ones, reflecting the conceptual understanding component of the standard. Students also solve problems such as 68 + 7 by drawing quick tens, a number bond, or the arrow way, reflecting the conceptual understanding component of the LSSM 1.NBT.C.6 and the procedural skill and fluency component of LSSM 1.NBT.B.4.
	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.	**Yes**	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. The Mid-Mission Assessment and End-of-Mission Assessment Answer Keys provide a rubric for each assessment, which checks for specific, observable, and measurable criteria. The Answer Keys provide student exemplar responses for each item, as well as the aligned standard(s). The rubrics provide actionable feedback that teachers can use to respond to student learning and misconceptions. For each item, a Progression Towards Understanding shows the "gradually increasing learnings that students develop on their way to full understanding," categorizing student understanding as Initiating Understanding, Developing Understanding, Nearing Understanding, and Full Understanding. The Course Guide notes that "if unfinished learning is evident on Mission-level

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			assessments, teachers should move forward with additional supports and address misconceptions during collaborative Concept Exploration and on Flex Days" using the foundational lessons. In addition, the Tower of Power activity provides real-time support if a student makes a mistake. Students have the opportunity to correct their mistakes and continue through the assessment. The Tower Alerts Report helps teachers identify where students struggled and whether or not they were able to complete the independent practice of the lesson. If a student struggles in the activity, the student receives real-time, scaffolded support through Boosts. Tower Alerts notify teachers when students struggle multiple times and suggest foundational support. For example, the Mission 3 Mid-Mission Assessment measures student understanding of LSSM 1.OA.A.1, 1.OA.A.2, 1.OA.B.3, and 1.OA.C.6. According to the rubric, students may receive 5-8 points on the first problem, with 8 points indicating that they fully understand the concept. Furthermore, a student receives 8 points if "The student correctly identifies 4 and 7 as making 10 and fills in the blank with 14," representing full understanding. A student receives 6 points if "The student correctly identifies 4 and 7 as making 10 but makes a calculation error, leading her to fill in the

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			blank with a number other than 14," representing developing understanding.
	6d) Materials provide 2-3 **comprehensive assessments** (interims/benchmarks) that measure student learning up to the point of administration.	**No**	Materials do not provide comprehensive assessments (interims/benchmarks) that measure student learning up to the point of administration. Mid-Mission and End-of-Mission Assessments assess students on the content addressed in that particular Mission, but do not include content from other Missions. Three interim assessments are available for separate purchase through ANet to measure learning across multiple Missions but are not included in the core materials.
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.	**Yes**	The content can be reasonably completed within a regular school year, and the pacing of content allows for maximum student understanding. The materials include six Missions addressed over a 36-week period. Guidance suggests that teachers address four lessons per week and reserve a fifth Flex Day for differentiated instruction or assessment days.
	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.	**Yes**	The materials are easy to use and well-organized for students and teachers. Guidance is provided for lesson planning and instructional delivery, lesson flow, questions to help promote student thinking, and expected student outcomes. The Course Guide provides a scope and sequence, pacing guidance, explicit instructions for implementing the materials, guidance for supporting diverse learners, and guidance for using

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			assessments and reports. In addition, the Course Guide details instructional routines throughout the lessons, as well as strategies for multilingual learners. The consistent structure of each lesson includes a Warm-Up, Concept Exploration, and Wrap-Up. Guidance for planning for a Mission suggests that teachers familiarize themselves with the math of the Mission, work through a selection of the Independent Digital Lessons, and check the class reports to review student progress. The teacher can also follow guidance for Core Days and Flex Days to meet all student needs. The materials suggest discussion questions throughout the lessons, in addition to sections labeled Multiple Means of Engagement, Multiple Means of Action and Expression, and Multiple Means of Representation that provide further support for teachers within the lesson's Concept Exploration. As students complete the Digital Lesson, the organization is easy to follow and understand, as each lesson follows the same structure. Students begin with two fluency activities, then engage in Guided Practice, followed by Independent Practice. Students have the option to engage in the Bonus activity for enrichment if time allows. Every Mission includes Student Notes for Digital Lessons and Exit Tickets, in which students can easily record notes during the lessons to complete Exit Tickets at the end of the

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			lessons. During Guided Practice of the Independent Digital Lessons, students complete problems in their paper Student Notes and gain exposure to words, expressions, and sentences as they label diagrams, write answer sentences, and explain their solutions. The teacher administers the Exit Ticket at the completion of each Independent Digital Lesson and reviews student responses in addition to the Tower of Power student data to monitor daily learning. Optional Problem Sets and Homework are easily accessible on the platform, along with Teacher Lesson Materials, Assessment Answer Keys, and Foundational Guidance.
	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.	**Yes**	Materials include unit and lesson study tools for teachers. Each lesson provides an explanation of the lesson, including the standards and objectives. Resources provide sufficient background knowledge to support teachers and are well-organized and easy to utilize. Tutorial videos for implementing the materials in class are available for teachers in the PD tab on the Zearn homepage. Each Mission contains a Curriculum Study, which is located in the PD section accessible from the homepage. These studies are designed to build content knowledge for teaching the grade-level Mission. The teacher watches a video that explains the fluencies, word problems, and lessons in the Mission and answers questions when prompted throughout these videos. An

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			additional three-hour training course that explains the Zearn rotational model is available. This series of three videos largely focuses on daily scheduling and monitoring students to ensure their success. The Mission Overviews provide additional study tools, such as a detailed breakdown of the mathematics for the Mission and topic, a Curriculum Map for Grades K-5, objectives for each lesson in the Mission, an overview of each topic covered in the Mission, math terminology, and the focus standard for the Mission. Each Mission includes a Foundational Guidance section that provides the standards and lesson objectives for each topic in the Mission and connects a foundational content section. The foundational content shows the teacher where to find additional support from previous grade-level lessons for a particular objective. The Classroom Supports tab provides printable weekly schedules, getting started checklists, example anchor charts, and lesson trackers.
	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. For each topic, Foundational Guidance provides the objective for each lesson within the topic, as well as foundational content from previous grade levels or prior lessons. For example, Mission 2, Topic B focuses on counting on or making ten to solve result unknown problems.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			Foundational Lesson Guidance lists the following prerequisite skills from Grade K needed to access the grade level-level content: Apply the commutative property to count on from a larger addend." Mission 3, Topic B focuses on standard length units. Foundational Lesson Guidance lists the following prerequisite skills from Grade K needed to access grade-level content: "Compare the length of linking cube sticks to various objects." and "Relate more and less to 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.	**No**	Materials do not provide guidance to help teachers identify students who need prerequisite work to engage successfully in core instruction, on-grade-level work. There are no diagnostic tests, pre-assessments, or any other materials that help teachers identify students who need prerequisite work. Although student reports are provided, they are provided after lesson and Mission completion instead of before the learning takes place. For example, the materials include a Tower of Power activity during independent practices which provide a Boost when a student makes a mistake. The Boost breaks down the problem to help students understand what he or she did incorrectly. If a student continues to make mistakes after multiple attempts, the program alerts the teacher and suggests differentiated support for that student. However, the activity occurs after the lesson has been taught. Tools to

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			identify students that need pre-requisite work to access current, grade-level instruction prior to engaging in the on grade-level content are not provided.
	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. Each Mission contains Foundational Guidance to identify which prerequisite skills and supporting grade-level content to utilize for scaffolding and addressing unfinished learning. The guidance recommends previous grade-level lessons or prior lessons within the same grade level to use for prerequisite support. In addition, students practice prerequisite skills and concepts in lesson-aligned fluency activities such as Sprints, Pair Compare, Mix and Match, and Blasts. For example, in Mission 5, Topic A: Attributes of Shapes addresses LSSM 1.G.A.1. The materials suggest assigning Grade K, Mission 2, Lesson 9, and Grade K, Mission 2 Lessons 1, 3, and 6-7 as additional support. In Mission 6, Topic B: Numbers to 120 addresses LSSM 1.NBT.A.1, 1.NBT.B.2, 1.NBT.B.3, and 1.NBT.C.5. The materials suggest assigning Grade K, Mission 5, Lesson 18, in addition to Grade K, Mission 5, Lessons 15-18 as additional support.
	7g) Materials provide **clear guidance and support** for teachers about the structures that allow students to appropriately address unfinished learning using prerequisite work.	**Yes**	Materials provide clear guidance and support for teachers about the structures that allow students to appropriately address unfinished learning using

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			prerequisite work. The Course Guide suggests that teachers use Flex days to address individual needs. The materials provide just-in-time supports embedded in the Digital Lessons and recommend foundational lessons aligned to grade-level content within each lesson. The Tower of Power activity assesses student learning during Independent Practice and automatically launches a Boost with support and scaffolding from prior grade levels or prior lessons. If students continue to struggle during the Tower of Power, the teacher receives a Tower Alert Report that helps the teacher identify the part of the lesson in which a student struggled. This report helps teachers identify which students need additional support and recommends foundational lessons for each student.

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[4]	1. Focus on Major Work	**Yes**	Materials devote the majority of time to the major work for 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

[4] Must score a "Yes" for all Non-negotiable Criteria to receive a Tier I or Tier II rating.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			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 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 fluency 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 detailed in the content standards. Materials explicitly attend to the

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			specialized language of mathematics. However, materials do not 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[5]	5. Alignment Criteria for Standards for Mathematical Content	**Yes**	Materials provide all students extensive work with grade-level problems. Materials relate grade-level concepts explicitly to prior knowledge from earlier grades and courses. The materials are designed so that prior knowledge is extended to accommodate new knowledge, building to core instruction, on grade-level work. Lessons are appropriately structured and scaffolded to support student mastery. The materials prompt students to produce answers in a variety of ways. Materials include support for English Learners and other special populations.
	6. Quality of Assessments	**Yes**	Materials embed multiple assessment opportunities into content that measure student mastery of standards that reflect the balance of the standards. 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-appropriate way.

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

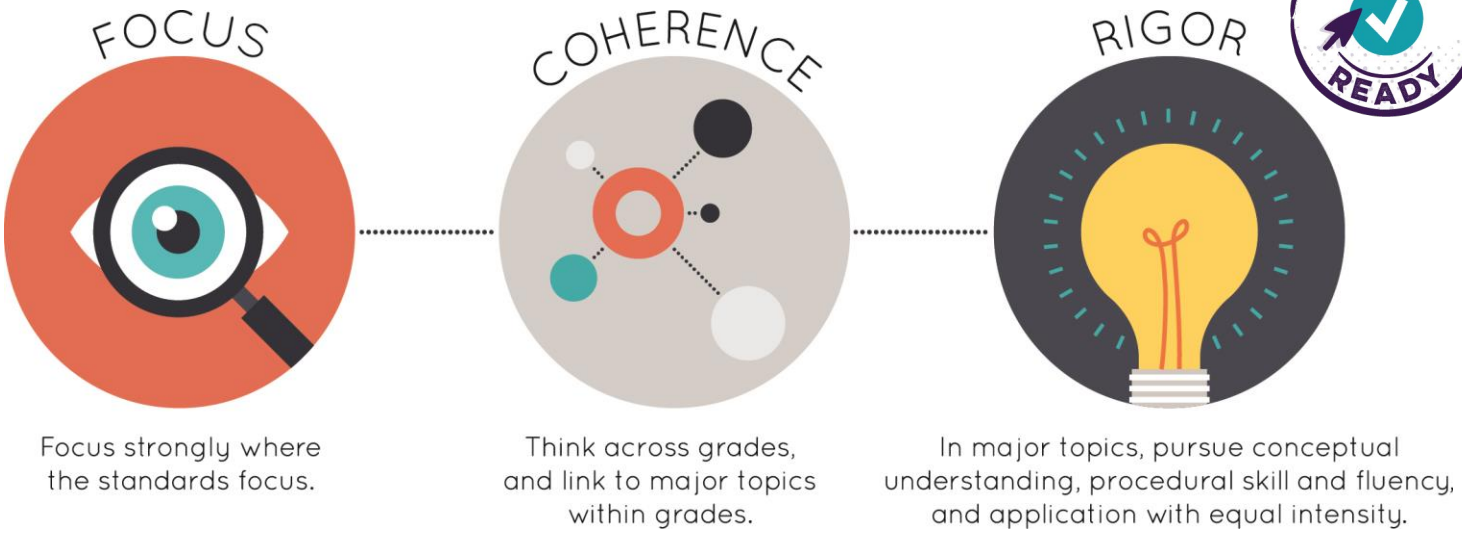
CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			Scoring guidelines and rubrics align to standards, incorporate criteria that are specific, observable, and measurable, and provide sufficient guidance for interpreting student performance, misconceptions,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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			that allow students to appropriately address unfinished learning using prerequisite work.
FINAL DECISION FOR THIS MATERIAL: **Tier I, Exemplifies quality**			

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

FULL CURRICULUM
Instructional Materials

Strong mathematics instruction contains the following elements:



Title: **Zearn Math**

Grade/Course: **2**

Publisher: **Zearn**

Copyright: **2023**

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

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

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

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

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

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

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

Tier 1 ratings receive a "Yes" for all Non-negotiable Criteria and a "Yes" for each of the Additional Criteria of Superior Quality.
Tier 2 ratings receive a "Yes" for all Non-negotiable Criteria, but at least one "No" for the Additional Criteria of Superior Quality.
Tier 3 ratings receive a "No" for at least one of the Non-negotiable Criteria.

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
Section I: Non-negotiable Criteria of Superior Quality: Materials must meet Non-negotiable Criteria 1 and 2 for the review to continue to Non-negotiable Criteria 3 and 4. Materials must meet all of the Non-negotiable Criteria 1-4 in order for the review to continue to Section II.			
Non-negotiable **1. FOCUS ON MAJOR WORK[2]:** Students and teachers using the materials as designed devote the large majority[3] 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 152 lessons, 79% are spent on major work of the grade. Specifically, 65% of lessons are spent on major standards, 14% are spent on a combination of major standards and supporting/additional standards, 19% are spent on supporting or additional standards, and 2% 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. All of the lessons within the materials relate to the work of the Grade 2 Louisiana Student Standards for Mathematics (LSSM). At times, materials review content from prior grade levels, but the review is used to connect previous learning to grade-level learning and does not take away from the focus of the on grade-level coursework. Throughout Mission 4, students add and subtract by decomposing and composing Numbers up to 200. In Topic A of Mission 4, students work with place value strategies to

[2] For more on the major work of the grade, see Focus by Grade Level.
[3] The materials should devote at least 65% and up to approximately 85% of class time to the major work of the grade with Grades K–2 nearer the upper end of that range, i.e., 85%.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			fluently add and subtract within 100 (LSSM 2.NBT.B.5). In Topic C of Mission 4, students learn strategies for decomposing a ten. In Lesson 11 of Mission 4, students represent subtraction with and without the decomposition of 1 ten as 10 ones with manipulatives (LSSM 2.NBT.B.5). For example, students subtract 35-9 and decompose 1 ten from 35 to make 15 ones and 2 tens. Students then solve the problem: 15 - 9 = 6 / 6 + 20 = 26. In Mission 5, students build upon their proficiency in renaming place value units and extend their work with conceptual understanding of the addition and subtraction algorithms to numbers within 1,000. In Topic B of Mission 5, students learn strategies for composing tens and hundreds within 1,000 (LSSM 2.NBT.B.7). Lessons 8-9 of Mission 5 focus on relating manipulative representations to the addition algorithm. For example, students use a place value chart to help them solve 77 + 55 in the standard algorithm. In Topic E of Mission 3, students transfer to modeling numbers with place value disks. For example, in Lesson 13, students draw place value disks to show the numbers 560 and 506 (LSSM 2.NBT.A.3). This transition illustrates a shift from concrete to pictorial. Mission 3, Topic D transfers fractions into telling time. Students show 6:15 on a geared analog clock. They solve "How many minutes past the hour is it?" Students answer 15 minutes and link the

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			terms quarter and fourth to 15 minutes. Each Mission includes two assessments, a Mid-Mission Assessment and an End-of-Mission assessment, with the exception of Missions 1-2. The assessments address only grade-level standards. For example, on the Mission 4 End-of-Mission Assessment, students mentally solve the problem 83 + 100 (LSSM 2.NBT.B.8). On another problem in the same assessment, students solve 38 + 68 + 71 + 12 and model how they found their answer (LSSM 2.NBT.B.6).
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. The materials spend time developing major work of the grade and use lessons addressing supporting standards to reinforce major standards. In Mission 6, Topic B, students organize equal groups into arrays, either a row or column representing a new unit for counting. Students use manipulatives to compose up to 5-by-5 arrays, 1 row or 1 column at a time, and express the total as repeated addition equations (LSSM 2.OA.C.4). For example, in Lesson 6 of Mission 6, students show 4 rows of 6 using lima beans. Students are asked questions such as how many rows (4), how many equal groups (4), and how many in each row (6). Students then create a repeated addition sentence representing their array: 6 + 6 + 6 + 6 = 24. Using various

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			strategies, students find the total number of lima beans in all, connecting back to LSSM 2.NBT.B.5. In Mission 7, Topic A, students display and organize data in the form of a bar graph (LSSM 2.MD.D.10) and use the information to solve put together, take apart, and compare problems, making connections to finding sums and differences on a number line diagram (LSSM 2.MD.B.6). For example, in Lesson 4 of Mission 7, students draw a bar graph representing favorite books. Students count how many of their classmates like a given book title and write the total in each category. Students then create a bar graph based on the book data. After creating the bar graph, students answer questions, such as: "How many fewer students like the Cow book than the Journey book?" In Mission 3, Topic D, Lessons 8-10, students use place value understanding to model ten numbers with money, connecting LSSM 2.MD.C.8 with the 2.NBT.A cluster. During Lesson 8, students count the value of $1, $10, and $100 bills up to $1,000. In Lesson 9, students count from $10 to $1,000 on the place value chart and a number line. In Lesson 10, students determine how many $10 bills they can change for a $ 1,000 bill. During the lessons, students switch back and forth from money to numerals to understand the correlation between base ten numerals and the corresponding

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			denominations of one-, ten-, and hundred-dollar bills.
	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. Mission 1, Topic B connects Clusters A (Represent and solve problems involving addition and subtraction) and B (Add and subtract within 20) of the Operations and Algebraic Thinking (OA) domain. In Lesson 8, students take from 10 within 100 (LSSM 2.OA.A.1). Students solve the following word problem: "Jacob has 23 bouncy balls. He gives 8 of them to his friend Pete. How many bouncy balls does Jacob have Left?" Students create a number sentence based on the information from the problem, 23 - 8 and learn that they can take 1 ten from 23 and make 13 ones, which equals 10 and 13. Students then build number sentences from the problem and solve (10 - 8 = 2 and 2 + 13 = 5) (LSSM 2.OA.B.2). Mission 8, Topic D connects the Geometry (G), Measurement and Data (MD), and Number and Operations in Base Ten (NBT) domains. During the topic, students apply their understanding of partitioning the whole into halves and fourths (LSSM 2.G.A.3) to tell time to the nearest five minutes using both analog and digital clocks (LSSM 2.MD.C.7). Students also construct simple clocks to understand the relationship between partitioning a circle

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			into quarters and halves and decomposing 60 minutes. For example, ¾ of a circle is decomposed as 15 + 15 + 15 = 45 (LSSM 2.NBT.A.2). In Mission 3, students develop an understanding that the digits in a three-digit number represent the number of hundreds, tens, and ones (LSSM 2.NBT.A.1). In Topic C, Students work with three-digit numbers in unit, standard, expanded, and word forms. In Lesson 4, Parts 1-2, students practice counting bundles of straws and placing them in box tops that represent the different digits in a place value chart. In Part 3, the teacher states, "Now, let's count today from 476 to 600 using my place value box. Let's analyze 476. How many hundreds do you see?" Students use the teacher's visual to answer 4 hundreds. Students then determine how many tens and ones, answering 7 tens and 6 ones. The teacher instructs the students to count from 476 to 600 using ones, tens, and hundreds." Students offer possible ways to count, such as using ones to get to 480, tens to get to 500, and a hundred to get to 600. In Lesson 5, students learn about unit form and word form, using the hide zero cards for support. The teacher leads students through different ways of composing 236 when digits are out of order, using hide zero cards, and by writing the units on the board. In Lesson 6, students write base numbers in expanded form. For example, students write 243 as 100 + 100 + 10 + 10

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			+ 10 + 10 + 1 + 1 + 1 = 243 and 200 + 40 + 3 = 243, connecting LSSM 2.NBT.A.1 to LSSM 2.NBT.B.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 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. The materials include high-quality conceptual problems and discussions. Students develop conceptual understanding time, and the materials include several opportunities for students to demonstrate their conceptual understanding. The materials adhere to the expectation of conceptual understanding where appropriate and in alignment with the standards. Throughout the materials, students build conceptual understanding through the use of concrete and digital manipulatives, multiple means of representation, multiple strategies, sentence frames, tools, and templates. In addition, students build conceptual understanding with their teacher and peers in the Collaborative Concept Exploration through mathematical discourse, as well in the self-paced Independent Digital Lessons. Student understanding is expressed in multiple ways, such as through creating models, critiquing the arguments of others, and interpreting solutions to problems. For example, in Mission 3, Lesson 1, students expand their understanding of place value concepts and of units by bundling ones, tens, and

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			hundreds up to 1,000 with straws (LSSM 2.NBT.A.1). Students synthesize the concept of units and place value by answering the following questions: "Look at the numbers 435 and 673. What are the different units in each number? What is the largest unit? What is the smallest unit?" and "How many units are in 1 ten? How many units of 10 are in 1 hundred? How many units are in 1 thousand?" In Mission 4, students focus on computational strategies that help develop their understanding of the value of each digit within a number as well as why the algorithm works (LSSM 2.NBT.B.9). Across the Mission, students develop strategies for composing and decomposing tens and hundreds. In Lesson 8, students solve 32 + 24 vertically and with a place value chart to understand the composition and decomposition of units. In Mission 6, Topic A, students create and add equal groups to build the foundation for Topic B, in which they use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns and to write an equation to express the total as a sum of equal addends (LSSM 2.OA.C.4). Students use manipulatives to create equal groups in Lesson 1, use math drawings to represent equal groups and repeated addition in Lesson 2-3, and represent equal groups with tape diagrams and repeated addition in Lesson

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			4. Then, in Topic B, students extend this concept as they organize equal groups into rectangular arrays. Students build arrays and use repeated addition to find the total. For example, in Lesson 6, students use an array of 4 rows of 5 beans to answer questions such as "How many rows do you see?" and "Are the rows equal?" to determine that the row is an equal group and that there are four rows of equal groups. Students label each row with a 5 and then add the rows together, adding 5 each time to determine that the total is 20. Students then label each column with a 4 and add the columns together, adding 4 each time to determine that the total is 20.
	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. The materials are designed in a way that procedural skill and fluency are acquired through a progression of learning over time and throughout the course of the materials. Students begin every lesson with a warm-up, Fluency Practice that provides students the opportunity to strengthen procedural fluency. During Fluency Practice, students practice previously learned skills and prepare to extend those skills in the current lesson. Every Independent Digital Lesson includes the Number Gym, which engages students in individually adaptive fluency practice. In addition, each Independent Digital Lesson

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			also includes a fluency-aligned activity, such as Sprints, Pair Compare, Mix and Match, and Blasts. The fluency practices coincide with the lessons and connect with the appropriate standards. The materials also provide several opportunities to build procedural skills by offering optional problem sets and homework problems. The required fluencies for Grade 2 include adding and subtracting within 100 (LSSM 2.NBT.B.5) and fluently finding single-digit sums and difference by memory (LSSM 2.OA.B.2). In Mission 1, Lessons 1-2, students practice adding and subtraction within 20. The students begin with Ten-Frame Flashes, as they review ways to make and take from ten, such as 9 + 1 = 10, 10 – 9 = 1. Students also practice Say Ten counting with Sprints using a familiar 10 + n Sprint. Finally, students decompose 10 in different ways by rolling a die and recording number bonds within 10 in Target Practice. Lesson 2 is similar to Lesson 1, with activities extending to numbers within 100 (LSSM 2.NBT.B.5). Students review representations of two-digit numbers with quick tens and ones in preparation for upcoming work within the Mission. Students build proficiency by alternating between regular and Say Ten counting with the support of Hide Zero cards and a 100-Bead Rekenrek, saying “6 tens 4” for 64. In Lesson 3, after engaging in Number Gym, students complete two rounds of a

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			Sprint, attempting to beat their original score in round 2. Students answer as many addition and subtraction problems within 100 as they can within 60 seconds. When the time is up, students check their work to see which problems they answered correctly and incorrectly, then retry the problems that were answered incorrectly (LSSM 2.NBT.B.5). Students demonstrate addition fluency as they solve several additional problems during Independent Practice and Optional Problem Set and Homework. In Mission 2, Topic C, students measure and compare to determine how much longer one object is than another (LSSM 2.MD.A.4). For example, In Mission 2, Lesson 6, students measure and compare lengths using centimeters and meters. Students measure side A of a paper (the long side) and side B of the same paper (the short side) using meter strips. Students then find how much longer Side A is than Side B. Mission 4 provides students with more opportunities to build fluency when adding and subtracting within 100 (LSSM 2.NBT.B.5). Topic B revisits strategies for composing a ten. In Lesson 6, students use manipulatives to represent the composition of 10 ones as 1 ten with two-digit addends. Using Place Value Disks, Partner A shows 35 on the place value chart, and Partner B shows 6. Together, they make 11 ones and trade 10 of the ones for a ten disk so that they have 4

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			tens disks and 1 one disk. Students practice fluency with addition and subtraction within 100 during Independent practice and Optional Problem Set and Homework.
	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. Throughout the materials, problems provide students the opportunity to apply their conceptual understanding and/or procedural skills in a real-world context in which students model, reason, and justify responses to demonstrate their understanding. In Mission 7, Lesson 1 students categorize animals into classes (mammals, birds, fish, and reptiles), organize them in the form of a table, and then use the category counts to solve simple put together, take apart, and compare word problems. Students then record category counts in the tables with both numerals and tally marks (LSSM 2.MD.D.10). In Lesson 5, Exit Ticket, students use data from a table about pennies buried on Treasure Island to fill in a graph. Students then answer questions such as “How many pennies are on Treasure Island in all?” and “Monkey Island has 18 fewer pennies than Treasure Island. How many pennies are on Monkey Island?” Students support their answer with a number sentence (LSSM 2.MD.D.10). In Mission 7, Lesson 9, students Solve word problems involving the total value of a group of bills and

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			different combinations of coins with the same total value. Part 2, Problem 1 states, "Tony gets 83¢ change back from the cashier at the corner store. What coins might Tony have received?" Students share several ways to make 83 cents. Problem 2 says, "Carla has 4 dimes, 1 quarter, and 2 nickels to spend at the snack stand. Peyton has 3 coins, but he has the same amount of money to spend. What coins must Peyton have? How do you know?" Students solve to figure out how much money Carla has before deciding what three coins Peyton has (LSSM 2.MD.C.8).
	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 address the various aspects of rigor appropriately, depending on the standard expectations and the balance needed to address the rigor component of the standard. For example, Mission 1, Topic A sets the foundation for students to master fluency with sums and differences to 100 using place value understanding, properties of operations, and relationships between addition and subtraction (LSSM 2.NBT.B.5). Then in Topic B, students develop and practice strategies for fluently adding and subtracting within 100. Mission 3, Topic C integrates conceptual understanding and procedural skill in fluency across four lessons. In

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			Lesson 4, students count on the place value chart by ones from 0 to 124, bundling larger units as possible. In Lessons 5-7, students write three-digit numbers in unit form, showing the value of each digit, write base ten numerals in expanded form, then write, read, and relate base ten numbers in all forms (LSSM 2.NBT.A.3). For example, students use the word form of 465 to write the number in expanded form and number form. In Mission 4, students apply base ten understanding as they decompose and compose with addition and subtraction up to 200. Students learn and apply various strategies in application problems. For example, in Lesson 1, Exit Ticket, students solve the following problem: “In the morning, Ms. Johnson picked 23 strawberries. In the afternoon, she picked 10 more. In the evening, she picked 1 more. How many strawberries did Mrs. Johnson pick in all?” To solve the problem, students draw a model to represent the problem, write a number sentence, and write a word sentence to answer the question. In Lesson 3, students solve the following problem: “Terrell put 19 stamps in his book on Monday. On Tuesday, he put 32 stamps. How many stamps did Tyrell put in his book on Monday and Tuesday? If Terell’s book holds 90 stamps, how many more stamps does he need to fill his book?” Students draw a model to represent the problem, such as a tape

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			diagram or number bond, and write a number sentence to solve the problem.
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 the students' development of the math practices, contributing to students' habits of mind as they develop fluency, procedural skills, and conceptual understanding. The materials are clearly designed in a way that connects the practice standards and content standards. The practice standards are not taught in isolation and are taught to the full meaning of the standards. In Mission 1, Lesson 8, students extend the take from ten strategy to numbers within 100 (LSSM 2.NBT.B.5). For example, to solve 41 - 9, students decompose 41 as 31 and 10, take from 10 (10 - 9) and add the parts that are left (31 + 1). In this lesson, students look for and express regularity in repeated reasoning (MP.8) when making a ten and taking from a ten to solve addition and subtraction problems. In Mission 3, Topic B, students make use of structure (MP.7) as they use multiples of 10 and 100 and think in terms of getting to a ten or a hundred. For example, in Lesson 2, students use straws to count up. They begin with a bundle of 100 straws, adding 1 straw at a time until they get to 110 straws. Students then make a unit of 1 ten

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			by bundling the 10 straws. Then, they continue to add bundles of 10 straws to count up to 200 (LSSM 2.NBT.A.2). In Mission 5, students decompose tens and hundreds within 1,000 (LSSM 2.NBT.B.7). In Lesson 13, students model decompositions with place value charts (MP.4) while recording the changes in the vertical form. For example, students subtract 547 - 168 vertically, using a place value chart to model the problem as they subtract each place.
	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 detailed in the content standards. Throughout each Mission, students have the opportunity to critique problems, correct work, and justify their reasoning. In Mission 4, Topic F, students think about and discuss the multiple strategies they have learned to represent and solve addition and subtraction problems. For example, Lesson 29, students learn the total below method. Students decompose two- and three-digit numbers, add like units, and record totals horizontally. The totals below method gives students the option of adding from left-to-right or from right-to-left. Students explain how each step in their drawings relates to this written method. In Mission 6, Lesson 15, students use math drawings to partition rectangles, then shade in rows or columns

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			and relate them to a repeated addition sentence. For example, students shade in 5 rows of 3, then relate their model to repeated addition (3 + 3 + 3 + 3 + 3). Students explain why their repeated addition equations match their model. In Mission 2, Lesson 7, the teacher asks students to measure a straw with paper clips of varying sizes. Once the students realize they are getting different measurements, the teacher asks them to talk about why they have different measurement numbers. Students continue to measure items, stopping to discuss why their measurements are different. In Mission 7, Lesson 7, students solve the following problem: "Mark and Melissa both measured the same marker with an inch tile but came up with different lengths. Circle the student work that is correct, and explain why you chose that work."
	Required **4c)** Materials explicitly attend to the **specialized language** of mathematics.	**Yes**	Materials explicitly attend to the specialized language of mathematics. The Course Guide describes Mathematical Language Routines (MLR) that are used throughout the materials to support students' mathematical language development while they learn mathematical practices and content. The guide states that the feedback generated by the routines helps "students revise and refine not only the way they organize and communicate their own ideas, but also ask questions to clarify their understanding of

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			others ideas." For example, the purpose of the MLR3: Clarify, Critique, and Correct is to provide students the opportunity to analyze, reflect on, and develop "a piece of mathematical writing that is not their own." The purpose of MLR5: Co-craft Questions is to help students explore content before producing answers, to create "the language of mathematical questions themselves" and to "analyze how different mathematical forms and symbols can represent different situations." In addition, each Mission Overview includes a list of "New or Recently Introduced Terms" along with "Familiar Terms and Symbols" with definitions that students use across the Mission. Sample student responses include the use of mathematical language. In Mission 2, Lesson 1, students learn terminology such as estimate and endpoint. During the lesson, students relate length with multiple centimeter cubes, creating a mental benchmark for the centimeter. Students estimate the length of a pencil box by determining how many centimeter cubes would equal the length of the box. As students measure, they learn that there should be no gaps between the cubes and begin measuring at the end point. Students work with a partner to measure a set of used crayons. The teacher reminds students to use the word about to describe a measurement that is not exact. After students engage in

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			the activity, the teacher asks, "Did anyone find, when sharing your work, that you had a different measurement than your partner?" Teacher guidance states: "Students will share that they may have not lined up the object with the edge of the first centimeter cube or that they left spaces between cubes. This is an excellent opportunity to discuss endpoint." In Mission 6, students use terms such as arrays and repeated addition as they build an understanding that numbers other than 1, 10, and 100 can serve as units. In Topic A, students create equal groups and relate to repeated addition. In Lesson 1, students make equal groups and use the sentence frame, "There are ___ groups of ___ counters," to tell their partners how many counters are in each group.
	4d) There are teacher-directed materials that **explain the role of the practice standards** in the classroom and in students' mathematical development.	**No**	Materials do not include teacher-directed materials that explain the role of the practice standards in the classroom and in students' mathematical development. The Course Guide states that the materials provide students "regular opportunities to engage in and develop the Standards for Mathematical Practice" and that the MLRs support students' development of the practices. However, explicit teacher guidance is not provided at the lesson level to support teachers in ensuring that students develop the practices and understand the correlation between the content standards and the mathematical practices.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
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.	**Yes**	Materials provide all students extensive work with grade-level problems. Students engage in whole group and/or small group lessons with the teacher and their peers, followed by a self-paced Independent Digital Lesson. During the whole/small group lessons, students engage in a Warm-Up activity, a Concept Exploration, and a Wrap-Up activity. During the Concept Exploration, the teacher facilitates mathematical discourse among students as they move through a series of scaffolded math problems that progress towards the overall objective of the lesson. In the Independent Digital Lesson, students continue to explore and develop concepts during Guided Practice and apply what they learn in the Independent Practice section of the Digital Lesson. Students can also complete a Bonus section that addresses the focus standard of the lesson. The class then engages in a Lesson Synthesis as the teacher guides students through discussion to process their learning and to "surface any misconceptions or misunderstandings." This activity is followed by an Exit Ticket in which students demonstrate their understanding of the lesson. The materials also include Optional Problem Sets and Optional Homework for additional practice with lesson content. For example, in Mission 3, Lesson 16, students compare

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			numbers using symbols <, >, and = on the place value chart. After the Concept Exploration in both the whole group and Digital Lesson, students complete the Tower of Power activity in the Independent Practice section of the Digital Lesson. Students complete several problems to demonstrate their understanding of the lesson content, which is adaptive and based on their ability to complete the problems correctly. Students have the option to complete the Bonus section of the Digital Lesson, as well. Students then complete an Exit Ticket that includes an eight-part problem in which students compare numbers in standard, word, and expanded form. The Problem Set includes additional problems for students to apply their learning. The first three questions include multiple parts followed by a word problem, all of which provide students the opportunity to practice comparing numbers in various forms. The Optional Homework for the lesson includes an additional eleven problems.
	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.	**Yes**	Materials relate grade-level concepts explicitly to prior knowledge from earlier grades and courses and are designed so that prior knowledge is extended to accommodate new knowledge. Lessons are appropriately structured and scaffolded to support student mastery. Each Mission consistently relates lesson content to previous grade-level material

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			and standards in a way that helps the student progress to meet the current grade-level standards. In the Fluency portion of each lesson, students access prior knowledge before beginning grade-level work in order to prepare for practicing and extending their knowledge during the lesson. The small group session coupled with the Digital Lesson supports student proficiency of grade-level standards by connecting and extending prior knowledge to assist students in accessing grade-level content. In Mission 1, students gain proficiency with sums and differences to 20. Students apply these skills to fluently add one-digit to two-digit numbers at least through 100 using place value understanding, properties of operations, and the relationship between addition and subtraction. The Mission Overview relates this knowledge to Grade 1 skills and concepts and notes that students "worked extensively with numbers to gain fluency with sums and differences within 10 and became proficient in counting on" and "began to make easier problems to add and subtract within 20 and 100 by making ten and taking from ten." In Topic B, students build upon this understanding as they add and subtract within 100 by using the number system's base ten structure. For example, students "know 8 – 5 = 3, so 87 – 50 = 37 because 8 tens – 5 tens = 3 tens." (LSSM 2.NBT.5). In Mission 4, Lesson 2, students

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			represent and solve problems involving addition and subtraction (LSSM 2.OA.A.1) by building upon understanding developed in Grade 1 to mentally find 10 more or 10 less than a number without having to count. Students practice adding and subtracting multiples of 10 using the arrow method and by breaking up numbers into tens and ones using number bonds.
	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.	**Yes**	The materials prompt students to produce answers in a variety of ways. Throughout the lessons, students use concrete and digital manipulatives, various models, and pictorial representations. Students create models, such as number bonds, tape diagrams, and arrays, to represent solutions in a variety of ways. Students answer questions and provide explanations and/or justifications to support their answers. The materials provide opportunities throughout the lessons for students to construct arguments and provide explanations. In Mission 5, Topics B-C, students compose and decompose tens and hundreds within 1,000. As each topic begins, students relate manipulative representations to the algorithm and transition to creating math drawings in place of the manipulatives. Students use a variety of representations, such as number bonds, chip models, arrow notation, the algorithm, or tape diagrams. In Topic D, students synthesize their understanding of addition and subtraction

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			strategies and choose which strategy is most efficient for solving given problems. They defend their choices using place value language and their understanding of the properties of operations. In Mission 4, students analyze the relationships between quantities. In Mission 4, Lesson 16, students use tape diagrams and the chip method to solve single-step word problems, then progress into multi-step word problems later in the lesson. For example, students solve the following problem, "Farmer Ben picks 87 apples. 26 apples are green, 20 are yellow, and the rest are red. How many apples are red?" The lesson guidance suggests that the teacher "circulate and encourage students to use their favorite method to solve. Students should be alert to the relationships of the numbers and recognize when mental strategies are most efficient. Remind them to be prepared to explain their strategy using place value language." In Mission 6, Topic C, students use square tiles to build arrays. In Lesson 12, students begin creating their own pictorial drawings to compose arrays, then decompose them in Lesson 13. In Lesson 15, students begin shading grid paper to represent the arrays. In Mission 7, Lesson 15, students use square tiles to make a simple ruler with the mark and move forward method until they get to 12 inches, developing a better understanding of the measurement unit, feet.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
	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.	**Yes**	Materials include support for English Learners and other special populations. Materials are accessible for all learners and include teacher guidance to help support English Language Learners. In addition, each Mission provides a link to materials in Spanish for the Mission Overview, Fluency, word problems, small group lessons, assessments, Student Notes and Exit Tickets, Optional Problem Sets, and Optional Homework Assignments. The lessons include audio support for students during the Independent Digital Lessons, in addition to the closed captioning feature. Visual supports appear throughout the lessons in Number Gym, Math Chat, Tower of Power, and Bonus. The assessments available in Spanish allow the teacher to assess students' understanding of the standards without language barriers. The Course Guide describes Design Features That Support All Learners, such as consistent lesson structures, concepts developing over time from concrete to abstract, opportunities to apply mathematics to real-world context, access strategies, and physical math manipulatives. Accessible design features are included for students with disabilities, such as visual clarity through use of color, color contrast, font readability, volume consistency, assistive technology, including text-to-speech, screen readers, and Braille Translation Software, keyboard accessibility, and

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			instructional accommodations, including translation materials, guided notes, graphic organizers, read aloud, scribe, separate location or quiet place, breaks, checklists and other self-monitoring activities, and physical math manipulatives. Multiple Means of Representation, Engagement, and Action and Expression sections are provided throughout the lessons to support all learners.
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.	**Yes**	Multiple assessment opportunities are embedded into content materials that measure student mastery of standards that reflect the balance of the standards as presented in materials. Every Mission includes a Mid-Mission and an End-of-Mission Assessment that address the focus standards. The Mission-level assessments assess student understanding of content for the Mission. Level-lesson assessments include the digital Tower of Power and paper-based Exit Tickets. The Tower of Power is a scaffolded assessment that focuses on the content of the lesson and is administered at the end of each Independent Digital Lesson. The assessment adapts to the students based on their ability to answer all the questions correctly. The Exit Tickets also focus on the content of the lesson and are administered at the close of each lesson.
	Required **6b)** Assessment items include a **combination of tasks** that require students to demonstrate conceptual	**Yes**	Assessment items include a combination of tasks that require students to demonstrate conceptual understanding,

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
	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.		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-appropriate way. The materials give students a variety of opportunities to use procedural skills, fluency, and mathematical reasoning in real-world situations on the Exit Tickets and the assessments provided in each of the seven Missions. The assessment items are aligned with the components of rigor. Within the assessments, students provide explanations, use precision in mathematical statements, and utilize various models. For example, on the Mission 7 Mid-Mission Assessment, students answer the following question: "Hank emptied his pockets and found these coins. How much money does Hank have? Write the answer using the $ or ¢ symbol. Explain your thinking using pictures, numbers, or words." (LSSM 2.MD.C.8). Students count the coins in the illustration, tell how much is represented, and explain how they know the total amount of the coins, reflecting the application component of the standard. On the Mission 3 Mid-Mission Assessment, students use procedural skills and fluency as they answer the question: "These are bundles of hundreds, tens, and ones. How many total straws are there?"

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			(LSSM 2.NBT.A.2). On the Mission 4 Mid-Mission Assessment, students solve the following problem: "There are 37 snakes in Cuddle's Pet Shop. There are 18 fewer snakes than birds. How many birds are in Cuddle's Pet Shop? Choose a different strategy from the one Ari used. Show your work." (LSSM 2.OA.A.1). Students solve and show their work choosing a different strategy than Ari, reflecting the application component of the standard.
	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.	**Yes**	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. The Mid-Mission Assessment and End-of-Mission Assessment Answer Keys provide a rubric for each assessment, which checks for specific, observable, and measurable criteria. The Answer Keys provide student exemplar responses for each item, as well as the aligned standard(s). The rubrics provide actionable feedback that teachers can use to respond to student learning and misconceptions. For each item, a Progression Towards Understanding shows the "gradually increasing learnings that students develop on their way to full understanding," categorizing student understanding as Initiating Understanding, Developing Understanding, Nearing Understanding, and Full Understanding.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			The Course Guide notes that "if unfinished learning is evident on Mission-level assessments, teachers should move forward with additional supports and address misconceptions during collaborative Concept Exploration and on Flex Days" using the foundational lessons. In addition, the Tower of Power activity provides real-time support if a student makes a mistake. Students have the opportunity to correct their mistakes and continue through the assessment. The Tower Alerts Report helps teachers identify where students struggled and whether or not they were able to complete the independent practice of the lesson. If a student struggles in the activity, the student receives real-time, scaffolded support through Boosts. Tower Alerts notify teachers when students struggle multiple times and suggest foundational support. For example, the Mission 8 Mid-Mission Assessment measures student understanding of LSSM 2.G.A.1. According to the rubric, students may receive 11-17 points on the first problem, with 17 points indicating that they fully understand the concept. Furthermore, a student receives 17 points if "The student correctly identifies all 3: the number of sides, the number of angles, and the name of the shape," representing full understanding. A student receives 13 points if "The student correctly identifies 1 of the 3: the number of sides,

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			the number of angles, or the name of the shape," representing developing understanding.
	6d) Materials provide 2-3 **comprehensive assessments** (interims/benchmarks) that measure student learning up to the point of administration.	**No**	Materials do not provide comprehensive assessments (interims/benchmarks) that measure student learning up to the point of administration. Mid-Mission and End-of-Mission Assessments assess students on the content addressed in that particular Mission, but do not include content from other Missions. Three interim assessments are available for separate purchase through ANet to measure learning across multiple Missions but are not included in the core materials.
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.	**Yes**	The content can be reasonably completed within a regular school year, and the pacing of content allows for maximum student understanding. The materials include eight Missions addressed over a 36-week period. Guidance suggests that teachers address four lessons per week and reserve a fifth Flex Day for differentiated instruction or assessment days.
	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.	**Yes**	The materials are easy to use and well-organized for students and teachers. Guidance is provided for lesson planning and instructional delivery, lesson flow, questions to help promote student thinking, and expected student outcomes. The Course Guide provides a scope and sequence, pacing guidance, explicit instructions for implementing the materials, guidance for supporting diverse

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			learners, and guidance for using assessments and reports. In addition, the Course Guide details instructional routines throughout the lessons, as well as strategies for multilingual learners. The consistent structure of each lesson includes a Warm-Up, Concept Exploration, and Wrap-Up. Guidance for planning for a Mission suggests that teachers familiarize themselves with the math of the Mission, work through a selection of the Independent Digital Lessons, and check the class reports to review student progress. The teacher can also follow guidance for Core Days and Flex Days to meet all student needs. The materials suggest discussion questions throughout the lessons, in addition to sections labeled Multiple Means of Engagement, Multiple Means of Action and Expression, and Multiple Means of Representation that provide further support for teachers within the lesson's Concept Exploration. As students complete the Digital Lesson, the organization is easy to follow and understand, as each lesson follows the same structure. Students begin with two fluency activities, then engage in Guided Practice, followed by Independent Practice. Students have the option to engage in the Bonus activity for enrichment if time allows. Every Mission includes Student Notes for Digital Lessons and Exit Tickets, in which students can easily record notes during the lessons to

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			complete Exit Tickets at the end of the lessons. During Guided Practice of the Independent Digital Lessons, students complete problems in their paper Student Notes and gain exposure to words, expressions, and sentences as they label diagrams, write answer sentences, and explain their solutions. The teacher administers the Exit Ticket at the completion of each Independent Digital Lesson and reviews student responses in addition to the Tower of Power student data to monitor daily learning. Optional Problem Sets and Homework are easily accessible on the platform, along with Teacher Lesson Materials, Assessment Answer Keys, and Foundational Guidance.
	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.	**Yes**	Materials include unit and lesson study tools for teachers. Each lesson provides an explanation of the lesson, including the standards and objectives. Resources provide sufficient background knowledge to support teachers and are well-organized and easy to utilize. Tutorial videos for implementing the materials in class are available for teachers in the PD tab on the Zearn homepage. Each Mission contains a Curriculum Study, which is located in the PD section accessible from the homepage. These studies are designed to build content knowledge for teaching the grade-level Mission. The teacher watches a video that explains the fluencies, word problems, and lessons in the Mission and answers questions when

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			prompted throughout these videos. An additional three-hour training course that explains the Zearn rotational model is available. This series of three videos largely focuses on daily scheduling and monitoring students to ensure their success. The Mission Overviews provide additional study tools, such as a detailed breakdown of the mathematics for the Mission and topic a Curriculum Map for Grades K-5, objectives for each lesson in the Mission, an overview of each topic covered in the Mission, math terminology, and the focus standard for the Mission. Each Mission includes a Foundational Guidance section that provides the standards and lesson objectives for each topic in the Mission and connects a foundational content section. The foundational content shows the teacher where to find additional support from previous grade-level lessons for a particular objective. The Classroom Supports tab provides printable weekly schedules, getting started checklists, example anchor charts, and lesson trackers.
	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. For each topic, Foundational Guidance provides the objective for each lesson within the topic, as well as foundational content from previous grade levels or prior lessons. For example, Mission 1, Topic B focuses on initiating fluency with

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			addition and subtraction within 100. Foundational Lesson Guidance lists the following prerequisite skills from Grade 1 needed to access the grade-level content: "Solve addition problems using ten as a unit, and write two-step solutions." and "Subtract 7, 8, and 9 from teen numbers." Mission 3, Topic C focuses on three-digit numbers in unit, standard, expanded, and word forms. Foundational Lesson Guidance lists the following prerequisite skill from Grade 1 needed to access the grade-level content: "Write and interpret two-digit numbers as addition sentences that combine tens and ones."
	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, on-grade-level work. There are no diagnostic tests, pre-assessments, or any other materials that help teachers identify students who need prerequisite work. Although student reports are provided, they are provided after lesson and Mission completion instead of before the learning takes place. For example, the materials include a Tower of Power activity during independent practices which provide a Boost when a student makes a mistake. The Boost breaks down the problem to help students understand what he or she did incorrectly. If a student continues to make mistakes after multiple attempts, the program alerts the teacher and

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			suggests differentiated support for that student. However, the activity occurs after the lesson has been taught. Tools to identify students that need pre-requisite work to access current, grade-level instruction prior to engaging in the on grade-level content are not provided.
	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. Each Mission contains Foundational Guidance to identify which prerequisite skills and supporting grade-level content to utilize for scaffolding and addressing unfinished learning. The guidance recommends previous grade-level lessons or prior lessons within the same grade level to use for prerequisite support. In addition, students practice prerequisite skills and concepts in lesson-aligned fluency activities such as Sprints, Pair Compare, Mix and Match, and Blasts. For example, in Mission 5, Topic A: Strategies for Adding and Subtracting within 1,000 addresses LSSM 2.NBT.B.7, 2.NBT.B.8, and 2.NBT.B.9. The materials suggest assigning Grade 2, Mission 4, Lessons 1, 4, and 10, in addition to Grade 2, Mission 4, Lessons 2-4 and 6-12 as additional support. In Mission 6, Topic A: Formation of Equal Groups addresses LSSM 2.OA.C.4. The materials suggest assigning Grade 1, Mission 1, Lesson 19.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
	7g) Materials provide **clear guidance and support** for teachers about the structures that allow students to appropriately address unfinished learning using prerequisite work.	**Yes**	Materials provide clear guidance and support for teachers about the structures that allow students to appropriately address unfinished learning using prerequisite work. The Course Guide suggests that teachers use Flex days to address individual needs. The materials provide just-in-time supports embedded in the Digital Lessons and recommend foundational lessons aligned to grade-level content within each lesson. The Tower of Power activity assesses student learning during Independent Practice and automatically launches a Boost with support and scaffolding from prior grade levels or prior lessons. If students continue to struggle during the Tower of Power, the teacher receives a Tower Alert Report that helps the teacher identify the part of the lesson in which a student struggled. This report helps teachers identify which students need additional support and recommends foundational lessons for each student.
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[4]	1. Focus on Major Work	**Yes**	Materials devote the majority of time to the major work for the grade. Materials

[4] Must score a "Yes" for all Non-negotiable Criteria to receive a Tier I or Tier II rating.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			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 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 fluency 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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			and critique the arguments of others concerning key grade-level mathematics detailed in the content standards. Materials explicitly attend to the specialized language of mathematics. However, materials do not 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[5]	5. Alignment Criteria for Standards for Mathematical Content	**Yes**	Materials provide all students extensive work with grade-level problems. Materials relate grade-level concepts explicitly to prior knowledge from earlier grades and courses. The materials are designed so that prior knowledge is extended to accommodate new knowledge, building to core instruction, on grade-level work. Lessons are appropriately structured and scaffolded to support student mastery. The materials prompt students to produce answers in a variety of ways. Materials include support for English Learners and other special populations.
	6. Quality of Assessments	**Yes**	Materials embed multiple assessment opportunities into content that measure student mastery of standards that reflect the balance of the standards. 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

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

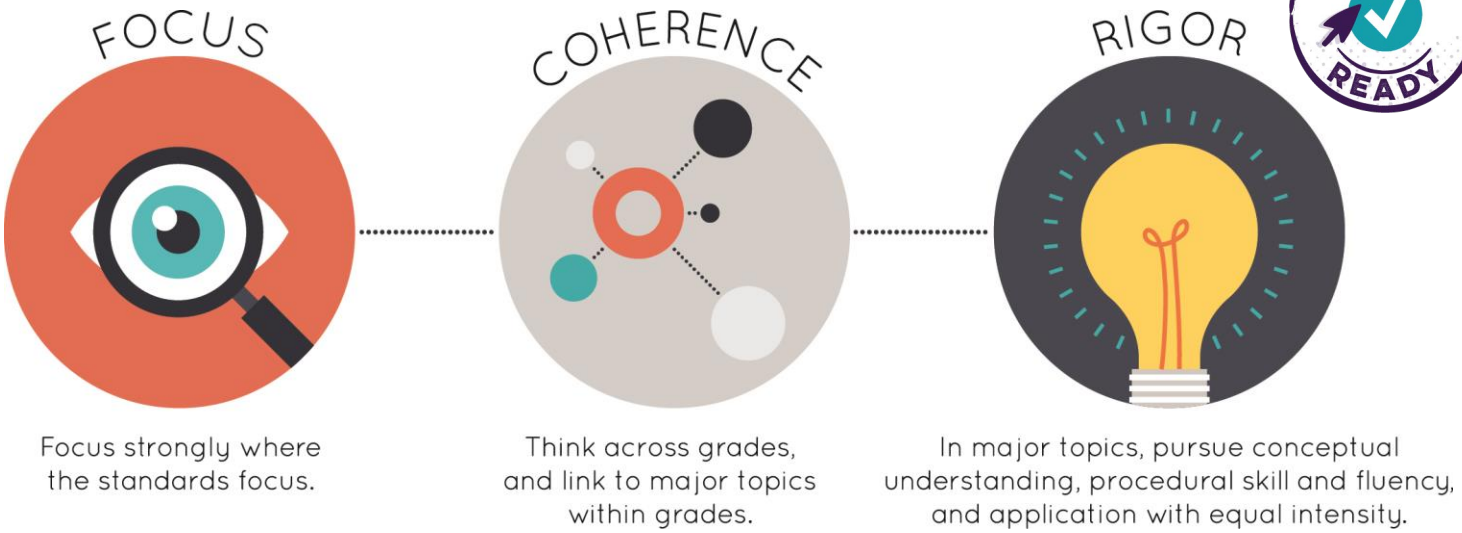
CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			real-world context. Assessment items require students to produce answers and solutions, arguments, explanations, and models in a grade-appropriate way. Scoring guidelines and rubrics align to standards, incorporate criteria that are specific, observable, and measurable, and provide sufficient guidance for interpreting student performance, misconceptions, and targeted support to engage in core instruction. However, materials do not provide comprehensive assessments (interims/benchmarks) that measure student learning up to the point of administration.
	7. Additional Indicators of Quality	**Yes**	The content can be reasonably completed within a regular school year, and the pacing of content allows for maximum student understanding. The materials are easy to use and well-organized for students and teachers. The materials provide guidance for lesson planning and instructional delivery, lesson flow, questions to help promote student thinking, and expected student outcomes. Materials include unit and lesson study tools for teachers. Materials identify prerequisite skills and concepts for the major work of the grade. However, materials do not provide guidance to help teachers identify students who need prerequisite work to engage successfully in core instruction, on-grade-level work. Materials provide targeted, aligned, prerequisite work for the major work of

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			the grade, directly connected to specific lessons and units in the curriculum. Materials provide clear guidance and support for teachers about the structures that allow students to appropriately address unfinished learning using prerequisite work.
FINAL DECISION FOR THIS MATERIAL: **Tier I, Exemplifies quality**			

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

FULL CURRICULUM
Instructional Materials

Strong mathematics instruction contains the following elements:



Title: **Zearn Math**

Grade/Course: **3**

Publisher: **Zearn**

Copyright: **2023**

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

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

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

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

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

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

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

Tier 1 ratings receive a "Yes" for all Non-negotiable Criteria and a "Yes" for each of the Additional Criteria of Superior Quality.
Tier 2 ratings receive a "Yes" for all Non-negotiable Criteria, but at least one "No" for the Additional Criteria of Superior Quality.
Tier 3 ratings receive a "No" for at least one of the Non-negotiable Criteria.

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
Section I: Non-negotiable Criteria of Superior Quality: Materials must meet Non-negotiable Criteria 1 and 2 for the review to continue to Non-negotiable Criteria 3 and 4. Materials must meet all of the Non-negotiable Criteria 1-4 in order for the review to continue to Section II.			
Non-negotiable **1. FOCUS ON MAJOR WORK[2]:** Students and teachers using the materials as designed devote the large majority[3] 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 the majority of time to the major work for the grade. Of the 156 lessons, 81% of instructional days are devoted to major work of the grade. Specifically, 51% of lessons are spent on major work alone, 30% of lessons are spent on a combination of major standards and supporting/additional standards, 11% of lessons are spent on supporting/additional standards, and 8% of lessons are marked as optional or enrichment lessons.
	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. All lessons are aligned to grade level content unless otherwise noted in the Louisiana implementation guidance. Lessons that do not explicitly align with Grade 3 Louisiana Student Standards for Mathematics (LSSM) are clearly marked as optional or enrichment lessons in the Louisiana implementation guidance. For example, Mission 4, Lessons 13-16 address standard 3.MD.7d, which is

[2] For more on the major work of the grade, see Focus by Grade Level.
[3] The materials should devote at least 65% and up to approximately 85% of class time to the major work of the grade with Grades K–2 nearer the upper end of that range, i.e., 85%.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			not included in the Grade 3 LSSM. The lessons are labeled as optional or enrichment lessons in the Louisiana implementation guidance. In addition, this guidance suggests that item 3a of the 4 End-of-Mission Assessment should be omitted or used for enrichment. The majority of the materials spend an appropriate amount of time on grade-level work while assessing the grade-level standards. Each lesson provides grade-level fluency work, guided practice, and independent practice to assess students before moving to the next lesson. Each Mission also provides a Mid-Mission Assessment and an End-of-Mission Assessment. The majority of lessons directly align to LSSM for Grade 3. At times, materials review content from prior grade levels, but the reviews are used to connect previous learning to grade-level learning and do not take away from the focus of the on grade-level coursework. For example, in Mission 1, Topic A, Lesson 2, students use addition to find the total number of objects in an array (LSSM 2.OA.C.4). This understanding is connected to core content as students relate repeated addition to multiplication and understand “equal groups of” as multiplication (LSSM 3.OA.A.1). The introduction of the lesson does not detract from grade-level content, but prepares students to write multiplication sentences from equal groups.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
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. Supporting standards are prevalent in the materials' latter Missions. The materials allow students adequate time to delve into lessons/activities that develop conceptual understanding, procedural skills, and fluency of Measurement and Data (MD) and Geometry (G) standards as they relate to the major work of the grade. In Mission 6, students organize, represent, and analyze data on charts and graphs. This Mission connects supporting LSMM 3.MD.B.3 and 3.MD.B.4 to major LSSM 3.OA.A.1, 3.OA.A.3, 3.OA.D.8, and 3.NF.A.2. These major standards are developed in prior Missions and reinforced within Mission 6. For example, in Lesson 2, students construct a picture graph using data and write multiplication sentences to represent the value of the picture "where the number of the hearts is the number of groups, and the number of students is the size of each group," connecting supporting LSSM 3.MD.B.3 to major LSSM 3.OA.A.3. In Lesson 2, students use multiplication to interpret vertical tape diagrams and relate to picture graphs, connecting supporting LSSM 3.MD.B.3 to major LSSM 3.OA.A.1. Lesson 6 connects supporting LSSM 3.MD.B.4 to major LSSM 3.NF.A.2 as students create and use line plots with

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			fractions to display measurement data and read and interpret line plots with fractional intervals. In Mission 5, Fractions as Numbers, students build an understanding of fractions as a single number. The first nine lessons of the Mission build student understanding of fractions as numbers as students specify and partition a whole into equal parts, and represent and identify fractional parts of different wholes (supporting LSSM 3.G.A.2) to develop an understanding of unit fractions and their relation to the whole (major LSSM 3.NF.A.1). Progressing through the Mission, students deepen this understanding as they compare unit fractions, place fractions on a number line, and develop an understanding of equivalent fractions (major LSSM 3.NF.A.2 and 3.NF.A.3). This culminates in Lessons 24-29 as students deepen their understanding of equivalence by manipulating units. For example, in Lesson 24, students partition same size rectangles into halves, fourths, thirds, and sixths to understand that one whole is equal to $^{2}/_{2}$, $^{3}/_{3}$, $^{4}/_{4}$, and $^{6}/_{6}$, connecting major 3.NF.A.1 and 3.NF.A.3 to supporting 3.G.A.2. The following lesson uses the same lesson structure as students partition wholes and number lines as they express whole number fractions on a number line when the unit interval is one.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
	Required **2b)** Materials include problems and activities that serve to connect two or more **clusters in a domain**, or two or more **domains in a grade/course**, in cases where these connections are natural and important.	**Yes**	Materials include problems and activities that connect two or more clusters in a domain and two or more domains in the grade level where these connections are natural and important. For example, In Mission 2, Lesson 5, students solve word problems involving elapsed time by adding and subtracting within the number line and connecting the Number and Operations in Base Ten (NBT) and Measurement and Data Domains (MD). For example, students solve the following problem: "Rebecca started reading at 11:20 pm. She was reading for 15 minutes. What time did Rebecca finish reading?" Students then plot the times on a number line and use the number line to find out when Rebecca finished reading (LSSM 3.NBT.A.2 and 3.MD.A.1). Mission 3, Lesson 2 connects clusters A (Represent and solve problems involving multiplication and division) and B (Understand properties of multiplication) of the Operations and Algebraic Thinking (OA) domain. During the lesson, students apply the distributive and commutative properties (LSSM 3.OA.B.4) to relate multiplication facts 5 x n + n to 6 x n and n x 6 where n is the size of the unit (LSSM 3.OA.A.3). For example, students solve "Use a fives fact to help you solve 7 x 6. Show your work using pictures, numbers, or words."
Non-negotiable **3. RIGOR AND BALANCE:**	**Required**	**Yes**	Materials develop conceptual understanding of key mathematical

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
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	**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.		concepts, especially where called for explicitly in the standards. The materials include high quality conceptual problems and discussions which develop students' conceptual understanding over time and provide students with several opportunities to demonstrate their conceptual understanding. The materials adhere to the expectations of conceptual understanding where appropriate and in alignment with the standards. Throughout the materials, students build conceptual understanding through the use of concrete and digital manipulatives, multiple means of representation, multiple strategies, sentence frames, tools, and templates. In addition, students build conceptual understanding with their teacher and their peers in Collaborative Concept Exploration through mathematical discourse, as well in the self-paced Independent Digital Lessons. Students express their understanding in multiple ways, such as through creating models, critiquing the arguments of others, and interpreting solutions to problems. For example, in Mission 4, Lesson 2, Small Group Lesson, students explore and make connections about area by decomposing and composing square inches. They cut a 12 inch strip of material into twelve 1-inch pieces, then form various arrays using all twelve pieces. Students use these manipulatives to construct a variety of rectangles and

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			discuss their observations as they move through the problem set (LSSM 3.MD.7a). In Mission 5, Lesson 1, students create concrete drawings using strips of paper to partition parts of fractions (LSSM 3.NF.A.1). During the lesson, students demonstrate conceptual understanding through responding to various questions, such as: "The fractional unit for 2 equal parts is halves. What fraction of the whole strip is one of the parts?" and "Discuss with your partner how we know these parts are equal." The materials also utilize fraction strips throughout Mission 5 while developing fraction concepts and to make direct connections to the number line in later lessons. For example, in Lesson 14, students move the lines marked on the fraction strip to the number line (LSSM 3.NF.A.2). In Mission 7, Lesson 2, students use chart paper and different color markers to draw a representation of problem 6 of the Problem Set, after the teacher models the activity. They pause at various points in the problem-solving process to make observations before arriving at their solution. Then, the teacher selects a few groups to share their thinking with the class, and the groups use equations to represent problem 6. After discussing their thinking about their equations, the teacher assigns problems for students to work in pairs to solve and write equations (LSSM 3.OA.D.8).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
	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. The materials are designed in a way that allows students to acquire procedural skill and fluency through a progression of learning over time. Students begin every lesson with Fluency Practice, a Warm-Up that provides students the opportunity to strengthen procedural fluency. During Fluency Practice, students practice previously learned skills and prepare to practice and extend those skills in the current lesson. Every Independent Digital Lesson includes Number Gym, which engages students in individually adaptive fluency practice. In addition, each Independent Digital Lesson also includes a fluency-aligned activity, such as Sprints, Pair Compare, Totally, Times, and Fraction Action. The fluency practices flow with the lessons and connect with the appropriate standards. The materials also provide several opportunities to build procedural skills through optional problem sets and homework problems. For example, in Mission 1, Lesson 8, Discovery Canyon, students use procedural skills to add two- and three-digit numbers (LSSM 3.NBT.A.2). Students develop these skills throughout Mission 1 in a direct progression of this standard into Mission 2. For example, in Mission 2, Lesson 15, students continue fluently adding and subtracting within 1,000 using the standard algorithm. In

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			Mission 1, Lesson 13, after engaging in Number Gym, students complete two rounds of a Sprint, attempting to beat their original score in round 2 by answering as many basic multiplication problems as they can within sixty seconds. When time is up, students check their work to see which problems they answered correctly and incorrectly and retry the problems that they answered incorrectly (LSSM 3.OA.C.7).
	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. Throughout the materials, problems provide students the opportunity to apply their conceptual understanding and/or procedural skills in a real-world context in which students model, reason, and justify responses to demonstrate their understanding. For example, in Mission 1, Lesson 20, Independent Practice, students solve the following multi-step problem: "Jerome buys a pack of pencils that cost $6. Then he buys 3 sets of markers. Each set of markers also costs $6." Students complete a tape diagram by first finding the total cost of the markers. Next, students find the total spent on the pencils and the markers combined (LSSM 3.OA.A.3). In Mission 6, Lesson 6, students use a scaled drawing of a ruler to represent data as they solve the following problem: "Katelynn measures the height of her bean plant on Monday and again on

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			Friday. She says that her bean plant grew 10 quarter inches. Her partner records 2 ½ inches on his growth chart for the week. Is her partner right? Why or why not?" (LSSM 3.MD.B.3). Depending on the student's strategy, he/she solves this problem in one-step by using a model/number line or in two steps by showing that the two quantities are equivalent. While the materials provide opportunities for students to work with engaging applications, the materials do not address LSSM 3.MD.E.9.
	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 address the various aspects of rigor appropriately, depending on the standard expectations and the balance needed to address the rigor component of the standard. For example, in Mission 6, Lesson 5, students create a ruler with 1 inch, ½ inch, and ¼ inch intervals and generate measurement data. Then, in Lesson 6, students use line plots with fractions to display measurement data (LSSM 3.MD.B.4). Across the lessons, students apply conceptual understanding and procedural skills. At times, the components of rigor are treated separately. For example, in Mission 2, Lesson 5, Exit Ticket, students engage in application as they solve the following problem: "Joey spends 45 minutes on homework every day. He

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			spends 14 minutes doing math and 20 minutes reading. He spends the rest of the time on science homework. How many minutes does Joey spend doing science homework?" (LSSM 3.MD.A.1c). In Mission 3, Lesson 1, students develop and apply conceptual understanding as they use the commutative property to discover facts that they already know using units of 6, 7, 8, and 9. This concept is applied in Lesson 2 as students apply the distributive and commutative property to relate multiplication facts (LSSM 3.OA.B.5). Mission 2, Lesson 8 integrates all three components of rigor as students solve one-step word problems involving metric weights within 100 and estimate to reason about solutions (LSSM 3.MD.A.2). For example, students solve the following problem: "A bag of beans weighs 47 grams and a bag of popcorn kernels weighs 26 grams. What is the total weight of the beans and kernels?" Students draw a picture to represent the problem and then provide the solution using two different strategies.
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	**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 the students in development of the math practices, contributing to students' habits of mind as students develop fluency, procedural skills, and

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
practice standards in a way to enrich and strengthen the focus of the content standards instead of detracting from them. ☒ Yes ☐ No			conceptual understanding. The materials are clearly designed in a way that connects the practice standards and content standards. The practice standards are not taught in isolation and are taught to the full extent of the standards. For example, in Mission 1, Lesson 2, Exit Ticket, item 2, students solve the following problem: "Judy collects seashells. She arranges them in 3 rows of 6. Draw Judy's array to show how many seashells she has altogether. Then, write a multiplication equation to describe the array." (LSSM 3.OA.A.3). The item addresses MP.1 (Make sense of problems) and MP.8 (Look for and express regularity in repeated reasoning). The students demonstrate their understanding that there is a specific way the seashells should be arranged and that each row should look exactly the same. In Mission 2, Lesson 4, students solve the following problem: "Ezra started reading at 6:15 pm He read for 35 minutes. What time did Ezra finish reading?" (LSSM 3.MD.A.1, 3.NBT.2). Students make sense of the problem (MP.1) by first plotting the time he started reading on the number line (MP.4). They then count by fives to find the time that Ezra finished reading. In Mission 5, Lesson 7, students solve the following problem: "Robert ate half of the applesauce in a container. He split the remaining applesauce equally into 2 bowls for his mother and sister. Robert said, 'I ate 1

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			half, and each of you gets 1 half.' Is Robert right? Draw a picture to prove your answer." (LSSM 3.NF.A.3). Students first make sense of the problem and conceptualize that the container is ultimately split in fourths (MP.1). Then, they decide whether Robert is correct and explain their thinking (MP.3) with the use of a model (MP.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 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. Throughout each Mission, students have the opportunity to critique problems, correct work, and justify their reasoning. For example, in Mission 5, Lesson 29, students compare the kilometers ran between Roy and Bill using the >, <, or = symbols. Students then use mathematical reasoning to explain who ran the greater distance (LSSM 3.NF.3d). Students have the opportunity to problem solve in the form of an argument throughout the materials. For example, in Mission 6, Lesson 6, students solve the following problem: "Katelynn measures the height of her bean plant on Monday and again on Friday. She says that her bean plant grew 10 quarter inches. Her partner records 2 ½ inches on his growth chart for the week. Is her partner right? Why or why not?" (LSSM 3.MD.B.4). In Mission 3, Lesson 2, students solve the following problem:

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			"Jocelyn says 7 fives has the same answer as 3 sevens + 2 sevens. Is she correct? Explain why or why not." (LSSM 3.MD.B.4). Additionally, students have the opportunity to engage in reasoning through viable arguments and justifications. For example, in the Debriefing Questions in Mission 6, Lesson 3, students solve the following problem: "Does the information change when a bar graph is drawn horizontally or vertically with the same scale? Why or why not?" (LSSM 3.MD.B.3). In the Mission 1, Lesson 16, Exit Ticket, students solve the following problem: "Destiny says, 'I can use 5 x 4 to find the answer to 7 x 4.' Use the array below to explain Destiny's strategy using words and numbers." (LSSM 3.MD.B.3).
	Required **4c)** Materials explicitly attend to the **specialized language** of mathematics.	**Yes**	Materials explicitly attend to the specialized language of mathematics. The Course Guide describes Mathematical Language Routines (MLR) that are used throughout the materials to support students' mathematical language development while they learn mathematical practices and content. The guide states that the feedback generated by the routines helps "students revise and refine not only the way they organize and communicate their own ideas, but also ask questions to clarify their understanding of others ideas." For example, the purpose of the MLR3: Clarify, Critique, and Correct is to provide students the opportunity to

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			analyze, reflect on, and develop "a piece of mathematical writing that is not their own." The purpose of MLR5: Co-craft Questions is to help students explore content before producing answers, to create "the language of mathematical questions themselves," and to "analyze how different mathematical forms and symbols can represent different situations." In addition, each Mission Overview includes a list of "New or Recently Introduced Terms" along with "Familiar Terms and Symbols" and definitions that students use across the Mission. Sample student responses include the use of mathematical language. For example, in Mission 3, Lesson 2, Word Problem, the sample student response references the commutative property, a term included in the terminology section for the Mission, when explaining that 5 sevens (3 fives + 2 fives) is equivalent to 7 fives. Questions and prompts are crafted to encourage use of mathematical terminology. For example, in Mission 3, Lesson 17, students determine whether the answer will be even or odd when answering the question, "Look at the factors in the multiplication equation. Then use the rules to predict if the product will be even or odd."
	4d) There are teacher-directed materials that **explain the role of the practice standards** in the classroom and in students' mathematical development.	**No**	Materials do not include teacher-directed materials that explain the role of the practice standards in the classroom and in students' mathematical development. The

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			Course Guide states that the materials provide students "regular opportunities to engage in and develop the Standards for Mathematical Practice;" and that the MLRs support students' development of the practices. However, explicit teacher guidance is not provided at the lesson level to support teachers in ensuring that students develop the practices and understand the correlation between the content standards and the mathematical practices.
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.	**Yes**	Materials provide all students extensive work with grade-level problems. Students engage in whole group and/or small group lessons with the teacher and their peers, which is followed by a self-paced Independent Digital Lesson. During the whole/small group lessons, students engage in a Warm-Up activity, a Concept Exploration, and a Wrap-Up activity. During the Concept Exploration, the teacher facilitates mathematical discourse among students as they move through a series of scaffolded math problems that progress towards the overall objective of the lesson. In the Independent Digital Lesson, students continue to explore and develop concepts during Guided Practice and apply what they learn in the Independent Practice section of the Independent Digital Lesson. Students can also complete a Bonus section that

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			addresses the focus standard of the lesson. The class then engages in a Lesson Synthesis as the teacher guides students through discussion to process their learning and to "surface any misconceptions or misunderstandings." This activity is followed by an Exit Ticket in which students demonstrate their understanding of the lesson. The materials also include Optional Problem Sets and Optional Homework for additional practice with lesson content. For example, in Mission 2, Lesson 2, students "relate skip counting by fives on the clock and telling time to a continuous measurement model, the number line." After the Concept Exploration in both the whole group and Digital Lesson, students complete the Tower of Power activity in the Independent Practice section of the Independent Digital Lesson. Students complete several problems to demonstrate their understanding of the content of the lesson, which is adaptive and based on their ability to complete the problems correctly. Students have the option to complete the Bonus section of the Independent Digital Lesson, as well. Students then complete an Exit Ticket that includes a four-part question about time intervals using a number line. The Problem Set includes additional problems for students to apply their learning. The first problem includes a seven-part question and is followed by four more questions in

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			which students use number lines to answer time interval questions. The Optional Homework for the lesson includes an additional seven problems.
	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.	**Yes**	Materials relate grade-level concepts explicitly to prior knowledge from earlier grades and courses and are designed so that prior knowledge is extended to accommodate new knowledge. Lessons are appropriately structured and scaffolded to support student mastery. Each Mission consistently relates lesson content to previous grade-level material and standards in a way that helps the student progress to meet the current grade-level standard(s). In the Fluency portion of each lesson, students access prior knowledge before beginning grade-level work in order to prepare for practicing and extending their knowledge during the lesson. The small group session coupled with the Digital Lesson supports student proficiency of grade-level standards by connecting and extending prior knowledge to support students in accessing grade-level content. Lessons in Mission 1, Topic A take students' Grade 2 work with arrays and repeated addition a step further by developing skip-counting rows as a strategy for multiplication. Arrays become a cornerstone of the Mission. For example, in Mission 1, Lesson 1, students expand on content learned in Grade 2 by using arrays and repeated addition to find the sum of an array they

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			create (LSSM 2.OA.C.4). During the lesson, students use repeated addition to develop an understanding of multiplication. Students use repeated addition sentences to create multiplication sentences and understand the connection between equal groups and multiplying (LSSM 3.OA.1). In Mission 2, Lesson 1, Fluency Practice, students engage in an activity to review telling time to the nearest five minutes (LSSM 2.MD.C.7) to prepare to count by five minute intervals on the number line and a clock (LSSM 3.MD.A.1).
	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.	**Yes**	The materials prompt students to produce answers in a variety of ways. Throughout the lessons, students use concrete and digital manipulatives, various models, and pictorial representations. Students create models such as tape diagrams, arrays, equations, tables, and graphs to represent solutions in a variety of ways. Students answer questions and provide explanations and/or justifications to support their answers. For example, in Mission 5, Lessons 29, Guided Practice, students solve the following problem: "April and Nora bought matching scrapbooks. April decorated $^{5}/_{9}$ of the pages in her book. Nora decorated $^{5}/_{6}$ of the pages in her book. Who has decorated more pages of her scrapbook?" Once students answer the problem, they explain how they found their answer using a model, such as a tape diagram showing who decorated more pages. In Mission 6,

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			Lesson 3, students construct a picture graph based on ice cream flavor data. Students use the key in the picture graph to determine how many people are represented by one cone. Next, students use a table with favorite ice cream flavors and complete the graph based on the information (LSSM 3.MD.B.3). In Mission 5, Lesson 5, Exit Ticket, item 3, students complete the following task: "Draw two identical rectangles. Partition one into 5 equal parts. Partition the other rectangle into 8 equal parts. Label the unit fractions and shade 1 equal part in each rectangle. Use your rectangles to explain why 1/5 is bigger than 1/8." Students draw, label and explain in an effort to demonstrate their conceptual knowledge of comparing unit fractions.
	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.	**Yes**	Materials include support for English Learners and other special populations. Materials are accessible for all learners, including English Learners, and include teacher guidance to help support English Language Learners. In addition, each Mission provides a link to materials in Spanish for the Mission Overview, Fluency, Word problems, small group lessons, assessments, Student Notes and Exit Tickets, Optional Problem Sets, and Optional Homework Assignments. The lessons include audio support for students during the Independent Digital Lessons, in addition to the closed captioning feature. Visual supports appear throughout the

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			lessons in Discovery Canyon, Math Chat, Tower of Power, and Bonus. The assessments available in Spanish allow the teacher to assess the students' understanding of the standards without language barriers. The Course Guide describes Design Features That Support All Learners, such as consistent lesson structures, concepts developing over time from concrete to abstract, opportunities to apply mathematics to real-world context, access strategies, and physical math manipulatives. Accessible design features are included for students with disabilities, such as visual clarity through use of color, color contrast, font readability, volume consistency, assistive technology including text-to-speech, screen reader and Braille Translation Software, keyboard accessibility, and instructional accommodations including translation materials, guided notes and graphic organizers, read aloud, scribe, separate location or quiet place, breaks, checklists and other self-monitoring activities, and physical math manipulatives. Multiple Means of Representation, Engagement, and Action and Expression sections are provided throughout the lessons to support all learners.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
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.	**Yes**	Multiple assessment opportunities are embedded into content materials that measure student mastery of standards that reflect the balance of the standards as presented in materials. Every Mission includes a Mid-Mission and an End-of-Mission Assessment that address the focus standards. The Mission-level assessments assess student understanding of content for the Mission. Level-lesson assessments include the digital Tower of Power and paper-based Exit Tickets. The Tower of Power is a scaffolded assessment that focuses on the content of the lesson and is administered at the end of each Independent Digital Lesson. The assessment adapts to the students based on their ability to answer all the questions correctly. The Exit Tickets also focus on the content of the lesson and are administered at the close of each lesson.
	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.	**Yes**	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-appropriate way. Students are given a variety of opportunities to use procedural skills, fluency, and mathematical reasoning in real-world situations on the Exit Tickets and the

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			assessments provided in each of the seven Missions. The assessment items are aligned with the components of rigor. Within the assessments, students provide explanations, use precision in mathematical statements, and utilize various models. For example, in Mission 5, Lesson 29, Exit Ticket, students first compare fractions using the >, <, and = symbols. In the second part of the problem, students use number lines to explain how they know the comparison in the first problem is correct, addressing the conceptual understanding component of LSSM 3.NF.A.3d. In Mission 3, Mid-Mission Assessment, items 4-5 assess LSSM 3.OA.A.3 and address the application component of the standard. For example, item 4 states, "For his snack day, Haiden brings 4 boxes of juice pouches. Each box has 8 juice pouches. Draw a tape diagram, and label the total number of juice pouches as p. Write an equation and solve for p." Item 5 states, "Miss Sharma runs around a track for a total of 27 minutes. It takes her 3 minutes to run a single lap around the track. How many laps does Miss Sharma run? Represent the problem using multiplication and division sentences and a letter for the unknown. Then, solve the problem." Mission 7, End-of-Mission Assessment, item 2 assesses LSSM 3.MD.6 and addresses the procedural skill expectation of the standard. In the item, students find the area and perimeter of

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			each shape consisting of squares that measure 1 square centimeter.
	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.	**Yes**	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. The Mid-Mission Assessment and End-of-Mission Assessment Answer Keys provide a rubric for each assessment which checks for specific, observable, and measurable criteria. The Answer Keys provide student exemplar responses for each item, as well as the aligned standard(s). The rubrics provide actionable feedback that teachers can use to respond to student learning and misconceptions. For each item, a Progression Towards Understanding shows the "gradually increasing learnings that students develop on their way to full understanding," categorizing student understanding as Initiating Understanding, Developing Understanding, Nearing Understanding, and Full Understanding. The Course Guide notes that "if unfinished learning is evident on Mission-level assessments, teachers should move forward with additional supports and address misconceptions during collaborative Concept Exploration and on Flex Days" using the foundational lessons. In addition, the Tower of Power activity provides real time support if a student

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			makes a mistake. Students have the opportunity to correct their mistakes and continue through the assessment. The Tower Alerts Report helps teachers identify where students struggled and whether or not they were able to complete the independent practice of the lesson. If a student struggles in the activity, the student receives real-time, scaffolded support through Boosts. Tower Alerts notify teachers when students struggle multiple times and suggest foundational support. For example, in Mission 3, the Mid-Mission Assessment measures student understanding of LSSM 3.OA.A.3, 3.OA.A.4, and 3.OA.B.5. According to the rubric, students may receive 5-8 points for each problem completed, with 8 points indicating that they fully understand the concept. For example, a student receives 8 points on the first problem if "The student provides two different multiplication equations that accurately represent the provided array," representing full understanding. A student receives 7 points on the first problem "The student provides 1 multiplication equation that accurately represents the provided array," representing nearing understanding.
	6d) Materials provide 2-3 **comprehensive assessments** (interims/benchmarks) that measure student learning up to the point of administration.	**No**	Materials do not provide comprehensive assessments (interims/benchmarks) that measure student learning up to the point of administration. Mid-Mission and End-of-Mission Assessments assess students

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			on the content addressed in that particular Mission, but do not include content from other Missions. Three interim assessments are available for separate purchase through ANet to measure learning across multiple Missions but are not included in the core materials.
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.	**Yes**	The content can be reasonably completed within a regular school year, and the pacing of content allows for maximum student understanding. The materials include seven Missions addressed over a 36-week period. Guidance suggests that teachers address four lessons per week and reserve a fifth Flex Day for differentiated instruction or assessment days.
	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.	**Yes**	The materials are easy to use and well-organized for students and teachers. Guidance is provided for lesson planning and instructional delivery, lesson flow, questions to help promote student thinking, and expected student outcomes. The Course Guide provides a scope and sequence, pacing guidance, explicit instructions for implementing the materials, guidance for supporting diverse learners, and guidance for using assessments and reports. In addition, the Course Guide details instructional routines throughout the lessons, as well as strategies for multilingual learners. The consistent structure of each lesson includes a Warm-Up, Concept Exploration, and Wrap-Up. Guidance for planning for a

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			Mission suggests that teachers familiarize themselves with the math of the Mission, work through a selection of the Independent Digital Lessons, and check the class reports to review student progress. Guidance for Core Days and Flex Days is provided so the teacher can meet all student needs. As students complete the Digital Lesson, the organization is easy to follow and understand, as each lesson follows the same structure. Students begin with two fluency activities, then engage in Guided Practice, followed by Independent Practice. Students have the option to engage in the Bonus activity for enrichment if time allows. Every Mission includes Student Notes for Digital Lessons and Exit Tickets which allow the students to easily record notes during the lesson and complete Exit Tickets at the end of the lessons. Optional Problem Sets and Homework are easily accessible on the platform, along with Teacher Lesson Materials, Assessment Answer Keys, and Foundational Guidance.
	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.	**Yes**	Materials include unit and lesson study tools for teachers. Each lesson provides an explanation of the lesson, including the standards and objectives. Resources provide sufficient background knowledge to support teachers and are well-organized and easy to utilize. Tutorial videos for implementing the materials in class are available for teachers. These videos are located in the PD tab on the

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			Zearn homepage. Each Mission contains a Curriculum Study, which is located in the PD section that is accessible from the homepage. These studies are designed to build content knowledge for teaching the grade-level Mission. The teacher watches a video that explains the fluencies, word problems, and lessons contained in the Mission and answers questions when prompted throughout these videos. An additional three-hour training course that explains the Zearn rotational model is available. This series of three videos largely focuses on daily scheduling and monitoring students to ensure their success. Additional study tools are located in the Mission Overviews. The Mission Overviews provide a detailed breakdown of the mathematics for the Mission and topic. Each Mission Overview also provides a Curriculum Map for Grades K-5, objectives for each lesson in the Mission, an overview of each topic covered in the Mission, math terminology, and the focus standard for the Mission. Each Mission includes a Foundational Guidance section that provides the standards and lesson objectives for each topic in the Mission and connects a foundational content section. The foundational content shows the teacher where to find additional support from the previous grade-level lessons for a particular objective. The Classroom Supports tab provides printable weekly schedules, getting started

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			checklists, example anchor charts, and lesson trackers.
	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. Foundational Guidance is provided for each topic. The guidance provides the objective for each lesson within the topic, as well as foundational content from previous grade levels or prior lessons. For example, Mission 2, Topic A focuses on time measurement and problem solving. Foundational Lesson Guidance lists the following prerequisite skills from Grade 2 needed to access the grade-level content: "Identify unknown numbers on a number line diagram by using the distance between numbers and reference points" and "Solve elapsed time problems involving whole hours and a half hour." Mission 4, Topic D focuses on applications of area using side lengths of figures. Foundation Lesson Guidance lists the following prerequisite skills from Grades 1 and 3 needed to access grade-level content: "Create composite shapes from two dimensional shapes" and "Find the area of a rectangle through multiplication of the side lengths."
	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, on-grade-level work. There are no diagnostic tests, pre-assessments, or any other materials that help teachers identify students who need

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			prerequisite work. Although student reports are provided, they are provided after lesson and Mission completion instead of before the learning takes place. For example, the materials include a Tower of Power activity during independent practices which provide a Boost when a student makes a mistake. The Boost breaks down the problem to help students understand what they did incorrectly. If a student continues to make mistakes after multiple attempts, the teacher will receive an alert suggesting differentiated support for that student. However, the activity occurs after the lesson has been taught. Tools to identify students that need prerequisite work to access current, grade-level instruction prior to engaging in the on grade-level content are not provided.
	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. Each Mission contains Foundational Guidance to identify which prerequisite skills and supporting grade-level content to utilize for scaffolding and addressing unfinished learning. The guidance recommends previous grade-level lessons or prior lessons within the same grade level to use for prerequisite support. In addition, students practice prerequisite skills and concepts in lesson-aligned fluency activities such as Sprints, Multiply Mania,

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			Pair Compare, Totally Times, Fraction Action, Mix and Match, and Blasts. For example, in Mission 1, Topic A: Multiplication and the Meaning of Factors addresses LSSM 3.OA.A.1 and 3.OA.A.3. The materials suggest assigning Grade 2, Mission 6, Lesson 7 and Grade 2, Mission 6, Lessons 1-2 and 4-7 as additional support. In Mission 6, Topic A: Generate and Analyze Categorical Data addresses LSSM 3.MD.B.3. The materials suggest assigning Grade 2, Mission 7, Lesson 5, in addition to Grade 2, Mission 4, Lesson 16 for additional support.
	7g) Materials provide **clear guidance and support** for teachers about the structures that allow students to appropriately address unfinished learning using prerequisite work.	**Yes**	Materials provide clear guidance and support for teachers about the structures that allow students to appropriately address unfinished learning using prerequisite work. The Course Guide suggests that teachers use Flex days to address individual needs. The materials provide just-in-time supports embedded in the Digital Lessons and recommend foundational lessons aligned to grade-level content within each lesson. The Tower of Power activity assesses student learning during Independent Practice and automatically launches a Boost with support and scaffolding from prior grade levels or prior lessons. If students continue to struggle during the Tower of Power, the teacher receives a Tower Alert Report that helps the teacher identify the part of the lesson in which a student struggled. This report helps teachers identify which

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			students need additional support and recommends foundational lessons for each student.
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[4]	1. Focus on Major Work	**Yes**	Materials devote the majority of time to the major work for 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 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 fluency and procedural skills required by

[4] Must score a "Yes" for all Non-negotiable Criteria to receive a Tier I or Tier II rating.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			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 detailed in the content standards. Materials explicitly attend to the specialized language of mathematics. However, materials do not 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[5]	5. Alignment Criteria for Standards for Mathematical Content	**Yes**	Materials provide all students extensive work with grade-level problems. Materials relate grade-level concepts explicitly to prior knowledge from earlier grades and courses. The materials are designed so that prior knowledge is extended to accommodate new knowledge, building to core instruction, on grade-level work. Lessons are appropriately structured and

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

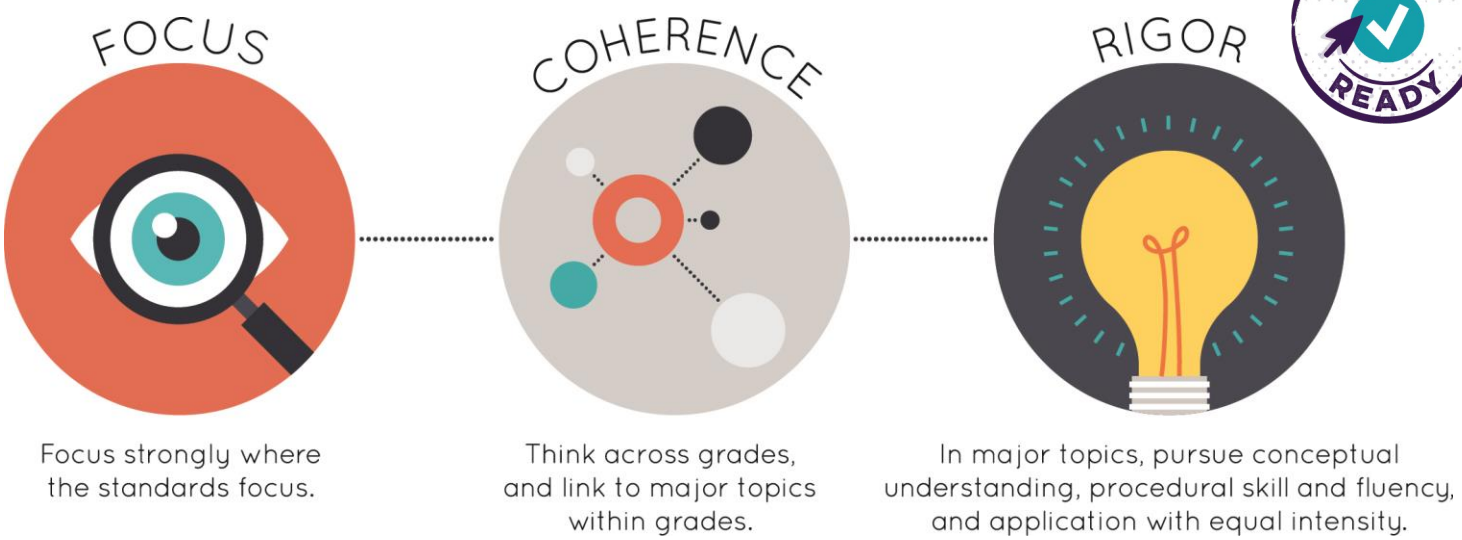
CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			scaffolded to support student mastery. The materials prompt students to produce answers in a variety of ways. Materials include support for English Learners and other special populations.
	6. Quality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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			students and teachers. Guidance is provided for lesson planning and instructional delivery, lesson flow, questions to help promote student thinking, and expected student outcomes. Materials include unit and lesson study tools for teachers. Materials identify prerequisite skills and concepts for the major work of the grade. However, materials do not provide guidance to help teachers identify students who need prerequisite work to engage successfully in core instruction, on-grade-level work. Materials provide targeted, aligned, prerequisite work for the major work of the grade, directly connected to specific lessons and units in the curriculum. Materials provide clear guidance and support for teachers about the structures that allow students to appropriately address unfinished learning using prerequisite work.
FINAL DECISION FOR THIS MATERIAL: **Tier I, Exemplifies quality**			

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

FULL CURRICULUM
Instructional Materials

Strong mathematics instruction contains the following elements:



Title: **Zearn Math**

Grade/Course: **4**

Publisher: **Zearn**

Copyright: **2023**

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

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

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

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

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

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

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

Tier 1 ratings receive a "Yes" for all Non-negotiable Criteria and a "Yes" for each of the Additional Criteria of Superior Quality.
Tier 2 ratings receive a "Yes" for all Non-negotiable Criteria, but at least one "No" for the Additional Criteria of Superior Quality.
Tier 3 ratings receive a "No" for at least one of the Non-negotiable Criteria.

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
Section I: Non-negotiable Criteria of Superior Quality: Materials must meet Non-negotiable Criteria 1 and 2 for the review to continue to Non-negotiable Criteria 3 and 4. Materials must meet all of the Non-negotiable Criteria 1-4 in order for the review to continue to Section II.			
Non-negotiable **1. FOCUS ON MAJOR WORK[2]:** Students and teachers using the materials as designed devote the large majority[3] 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 the majority of time to the major work for the grade. Of the 144 lessons, 76% of instructional days are devoted to major work of the grade. Specifically, 48% of lessons are spent on major work alone, 28% of lessons are spent on a combination of major standards and supporting/additional standards, 14% of lessons are spent on supporting/additional standards, and 10% of lessons are marked as optional or enrichment lessons.
	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. All lessons are aligned to grade level content unless otherwise noted in the Louisiana implementation guidance. Lessons that do not explicitly align with Grade 4 Louisiana Student Standards for Mathematics (LSSM) are clearly marked as optional or enrichment lessons in the Louisiana implementation guidance. For example, Mission 5, Lessons 20-21 focus on adding fractions with

[2] For more on the major work of the grade, see Focus by Grade Level.
[3] The materials should devote at least 65% and up to approximately 85% of class time to the major work of the grade with Grades K–2 nearer the upper end of that range, i.e., 85%.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			unlike denominators (LSSM 5.NF.A.1), which is not a Grade 4 LSSM expectation. The lessons are labeled as optional or enrichment lessons in the Louisiana implementation guidance. The assessments for Mission 5 do not assess LSSM 5.NF.A.1. The majority of the materials spend an appropriate amount of time on grade-level work while assessing the grade-level standards. Each lesson provides grade-level fluency work, guided practice, and independent practice to assess students before moving to the next lesson. Each Mission also provides a Mid-Mission Assessment and an End-of-Mission Assessment. The majority of lessons directly align to LSSM for Grade 4. At times, materials review content from prior grade levels, but the reviews are used to connect previous learning to grade-level learning and do not take away from the focus of the on grade-level coursework. For example, in Mission 3, Lesson 1, students begin by reviewing and comparing perimeter and area of a rectangle using graph paper (LSSM 3.MD.D.8). The lesson progresses as students develop and apply area and perimeter formulas in real-world and mathematical problems (LSSM 4.MD.A.3). The introduction of the lesson does not detract from grade-level content, but provides the opportunity for students to connect and apply previous grade level

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			understanding as they develop formulas for finding area and perimeter.
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. Supporting standards appear in multiple lessons in Missions 1-7. The materials allow students adequate time to delve into lessons/activities that develop conceptual understanding, procedural skills, and fluency of Measurement and Data (MD) and Geometry (G) standards as they relate to major work of the grade. In Mission 1, students develop fluency in adding and subtracting multi-digit numbers (LSSM 4.NBT.B.4). Then in Mission 2, Topics A-B, students express metric measurements, model, and solve addition and subtraction one- and multi-step word problems, connecting supporting LSSM 4.MD.A.1 and 4.MD.A.2 to major LSSM 4.NBT.B.4. For example, in Lesson 1, students learn that 1 kilometer is 1,000 meters, then add another 1,000 meters for each kilometer added to a chart. As the lesson progresses, students add mixed units of lengths using the standard algorithm or other strategies, such as 5 km + 2,500 m. In Lesson 5, students use addition and subtraction to solve multi-step word problems involving length, mass, and capacity, such as "The potatoes Beth bought weighed 3 kilograms 420 grams. Her onions weighed 1,050 grams less than the potatoes. How

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			much did the potatoes and onions weigh together?" In Mission 6, Lesson 1, students use metric measurement to model the decomposition of one whole into tenths, connecting supporting LSSM 4.MD.A.1 to major LSSM 4.NF.C.6. For example, students draw a tape diagram to represent the total amount of rice (10 equal bags of rice that weigh 1 kg all together). Students label the top of the tape diagram as 1 kg to represent the total weight of all ten bags, then partition the tape diagram into ten equal parts, labeling each part as $^{1}/_{10}$ kg. Students continue to count by tenths to compose 1 kg. Below the tape diagram, students create a number line and partition the number line into ten equal parts. Students represent each partition as a fraction of 1 kg by labeling the top of the number line with fractions, then write the equivalent decimals, such as 0.1, 0.2, and 0.3, below the number line. Lesson 2 reinforces this connection as students use the metric system and area models to represent tenths as fractions greater than one and as decimals. For example, students solve the following problem: "Using the centimeter ruler, draw a line that measures 2 cm. Then, extend the line by 6/10 cm."
	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 two or more domains in the grade level where these connections are natural and important. For example,

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			Mission 1, Lessons 1-4 connects the Number and Operations in Base Ten (NBT) and Operations and Algebraic Thinking (OA) domains. Students build an understanding of place value up to one million and the relationship between place value as ten times the value to the right. For example, in Lesson 1, students interpret multiplication as a comparison, understanding concepts such as one ten is ten times as much as one and one hundred is ten times as much as one ten (LSSM 4.NBT.A.1). Students then model ten times as much on a place value chart with an accompanying equation (LSSM 4.OA.A.1). Mission 7, Lessons 6-11 combines the Measurement and Data (MD) and Operations and Algebraic Thinking (OA) domains. Throughout the lessons, students solve single and multi-step problems involving measurement (LSSM 4.MD.A.2) using the four operations (LSSM 4.OA.A.3). For example, in Lesson 8, students solve, "A sign next to the roller coaster says a person must be 54 inches tall. At his last doctor's appointment, Hever was 4 feet 4 inches tall. He has grown 3 inches since then. Is Hever tall enough to ride the roller coaster? By how many inches does he make or miss the minimum height?"
Non-negotiable **3. RIGOR AND BALANCE:** Each grade's instructional materials reflect the balances in the	**Required** **3a) *Attention to Conceptual Understanding:*** Materials **develop conceptual understanding of key mathematical concepts,** especially where called for explicitly in specific	**Yes**	Materials develop conceptual understanding of key mathematical concepts, especially where called for explicitly in the standards. The materials

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
Standards and help students meet the Standards' rigorous expectations, by helping students develop conceptual understanding, procedural skill and fluency, and application. ☒ Yes ☐ No	content standards or cluster headings by featuring high-quality conceptual problems and discussion questions.		include high quality conceptual problems and discussions which develop students' conceptual understanding over time and provide students with several opportunities to demonstrate their conceptual understanding. The materials adhere to the expectations of conceptual understanding where appropriate and in alignment with the standards. Throughout the materials, students build conceptual understanding through the use of concrete and digital manipulatives, multiple means of representation, multiple strategies, sentence frames, tools, and templates. In addition, students build conceptual understanding with their teacher and their peers in Collaborative Concept Exploration through mathematical discourse, as well in the self-paced Independent Digital Lessons. Students express their understanding in multiple ways, such as through creating models, critiquing the arguments of others, and interpreting solutions to problems. For example, in Mission 5, Lesson 4, students decompose fractions into smaller equal fractions using tape diagrams. In problem 2, students use tape diagrams to represent the decomposition of ⅕ and ⅖ as the sum of smaller unit fractions. Students first draw a tape diagram and shade ⅕, then decompose each of the fifths into three equal parts to determine there are 15 parts and that $^{1}/_{5}$ is equal to $^{3}/_{15}$ (LSSM 4.NF.A.1). In Mission 5,

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			Lessons 12-15, students reason using benchmarks to compare two fractions on the number line and find common units or number of units to compare two fractions (LSSM 4.NF.A.2). The lessons use high quality conceptual problems and questions to build student understanding. For example, in Lesson 12, problem 1, students reason about the size of a fraction compared to ½ using a number line. Students partition the number line into sixths to determine "Which benchmark is $^{2}/_{6}$ closer to? 0, ½, or 1?" In Mission 1, Lesson 17, Small Group Lesson, students work in pairs to solve problems with multi-digit whole numbers (LSSM 4.OA.A.3, 4.NBT.B.6). They draw and share diagrams and receive and respond to feedback from their peers. Also, students assess and explain the reasonableness of their solution(s). Problems increase with complexity as problems one and two are single-step, problem three is two-step, and problem four is multi-step. In Mission 4, Lessons 2-3, students connect dots/points to form line segments and draw specific line segments, respectively. Mission 4, Topic A, Lesson 4 gives students alphabets (R, E, A, L) and asks them to identify certain angles and lines as prescribed in Grade 4 LSSM 4.G.A.1.
	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	**Yes**	Materials are designed so that students attain the fluencies and procedural skills required by the standards. The materials are designed in a way that allows students

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
	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.		to acquire procedural skill and fluency through a progression of learning over time. Students begin every lesson with Fluency Practice, a Warm-Up that provides students the opportunity to strengthen procedural fluency. During Fluency Practice, students practice previously learned skills and prepare to practice and extend those skills in the current lesson. Every Independent Digital Lesson includes Number Gym, which engages students in individually adaptive fluency practice. In addition, each Independent Digital Lesson also includes a fluency-aligned activity, such as Sprints, Pair Compare, Totally, Times, and Fraction Action. The fluency practices flow with the lessons and connect with the appropriate standards. The materials also provide several opportunities to build procedural skills through optional problem sets and homework problems. For example, in Mission 6, Lesson 1, after engaging in Number Gym, students complete two rounds of a Sprint, attempting to beat their original score in round 2 by answering as many division problems as they can within sixty seconds. When time is up, students check their work to see which problems they answered correctly and incorrectly and retry the problems that they answered incorrectly. All of the division problems in the fluency activity have a divisor of 10 which prepares students for the focus standard of Lesson

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			1, Use metric measurement to model the decomposition of one whole into tenths (LSSM 4.NF.C.6). The Problem Sets for Mission 6, Lessons 12-13 afford students several opportunities to practice adding fractions and decimal fractions with denominators of 10 or 100 in word form, as well as using the standard algorithm (LSSM 4.NF.5 and LSSM 4.NF.6).
	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. Throughout the materials, problems provide students the opportunity to apply their conceptual understanding and/or procedural skills in a real-world context in which students model, reason, and justify responses to demonstrate their understanding. For example, in Mission 1, Lesson 12, students engage in completing multi-step word problems using the standard algorithm modeled with tape diagrams and assess the reasonableness of answers using rounding (LSSM 4.OA.A.3). For example, students solve the following problem: “On Saturday, 32,736 more bus tickets were sold than on Sunday. On Sunday, only 17,295 tickets were sold. How many people bought bus tickets over the weekend? Use a tape diagram to show the work.” In Mission 7, Lesson 11, students use the Read Draw Write (RDW) method to solve the following problem: “Chef Joe has 8 lb 4 oz of ground beef in his freezer. This is ⅓ of the amount needed to make

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			the number of burgers he planned for a party. If he uses 4 oz. of beef for each burger, how many burgers is he planning to make?" (LSSM 4.MD.A.2). While the materials provide opportunities for students to work with engaging applications, the materials do not address LSSM 4.MD.D.8.
	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 address the various aspects of rigor appropriately, depending on the standard expectations and the balance needed to address the rigor component of the standard. For example, in Mission 1, Lesson 9, students solve the following problem: "34,123 people attended a basketball game. 28,310 people attended a football game. About how many more people attended the basketball game than the football game? Round to the nearest ten thousand to find the answer. Does your answer make sense? What might be a better way to compare attendance?" (4.NBT.A.3 and 4.NBT.B.4). Students apply place value understanding to round the numbers and use procedural skill to subtract the numbers. At times, the components of rigor are treated separately. For example, in Mission 5, Lesson 11, students build conceptual understanding of equivalent fractions (LSSM 4.NF.A.1). During the lesson, students explain fraction

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			equivalence using tape diagrams and number lines, then relate the visuals to multiplication and division. Mission 4, Lesson 10 integrates all three components of rigor. During the lesson, students use the addition of adjacent angle measures to solve problems using a symbol for the unknown angle measure (LSSM 4.MD.C.7). In Lesson 10, students first develop the understanding that angle measures are additive, using benchmark fractions and folded paper to develop this concept. Students continue to use folded paper to demonstrate that the angle measure of the whole is the sum of the angle measures of the parts. During this portion of the lesson, students procedurally add two angle measures, 62 and 27, to understand that the two parts make up a 90 degree angle. Finally, students apply conceptual understanding and procedural skill in problem 3, which states: "Given the angle measure of the whole, find the unknown measure of the part. Write an equation using a symbol for the unknown angle measure."
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	**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 the students in development of the math practices, contributing to student's habits of mind as students develop fluency, procedural skills, and

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
practice standards in a way to enrich and strengthen the focus of the content standards instead of detracting from them. ☒ Yes ☐ No			conceptual understanding. The materials are clearly designed in a way that connects the practice standards and content standards. The practice standards are not taught in isolation and are taught to the full extent of the standards. For example, in Mission 6, Lesson 16, students work with money amounts as decimal numbers, applying their previous understanding about decimals. During the lesson, students use the Read Write Draw (RDW) process to solve problems involving decimals. Students use strategies such as area models, tape diagrams, place value disks, and number lines. For instance, students solve the following problem: "Vanessa has 6 dimes and 2 pennies. Joachim has 1 dollar, 3 dimes, and 5 pennies. Jimmy has 5 dollars and 7 pennies. They want to put their money together to buy a game that costs $8.00. Do they have enough money to buy the game? If not, how much more money do they need?" (LSSM 4.MD.A.2). To solve the problem, students model (MP.4), calculate and solve (MP.6), and assess the reasonableness of their solution (MP.2). Mission 1, Lesson 1 incorporates MP.6 (Attend to precision) into the small group practice problems, as it connects student learning to LSSM 4.NBT.A.2. The small group problems use visual models and auditory learning to remind students that the value to the immediate left is ten times the value of the right. As students

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			move through Lesson 1, they use MP.5 (Use appropriate tools strategically). For example, students decide which is more appropriate to use, number (standard algorithm) or words (number/unit form) when solving the following problem: "Jane saved $800. Her sister has 10 times as much money. How much money does Jane's sister have? Use numbers or words to explain how you got your answer."
	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. Throughout each Mission, students have the opportunity to critique problems, correct work, and justify their reasoning. For examples in Mission 5, Lesson 18, problem 2 describes how two students used different methods to solve the same problem, $\frac{5}{8} + \frac{2}{8} + \frac{5}{8}$. Students answer "Whose strategy do you like best? Why?" Students justify their opinion and construct an argument for whose method works best (LSSM 4.NF.B.3). Similarly, in the End-of-Mission Assessment for Mission 1, students use data for the population of Norfolk, VA, and two other cities to answer questions using place value and compare the population of the three cities. In Part e of the question, students answer the following: "Eddie lives in Fredericksburg, VA, which has a population of 24,286. He says that

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			Norfolk's population is about 10 times as large as Fredericksburg's population. Explain Eddie's thinking." Students calculate to figure out if Eddie is correct, then explain why Eddie is correct in his statement (LSSM 4.NBT.A.1 and 4.NBT.A.2). In Mission 3, Lesson 19, Problem 2, students solve the following problem: "Marti's photo album has a total of 45 pictures. Each page of the album holds 4 pictures. She says she can only fill 10 pages completely. Do you agree? Explain why or why not." (LSSM 4.NBT.B.6).
	Required **4c)** Materials explicitly attend to the **specialized language** of mathematics.	**Yes**	Materials explicitly attend to the specialized language of mathematics. The Course Guide describes Mathematical Language Routines (MLR) that are used throughout the materials to support students' mathematical language development while they learn mathematical practices and content. The guide states that the feedback generated by the routines helps "students revise and refine not only the way they organize and communicate their own ideas, but also ask questions to clarify their understanding of others ideas." For example, the purpose of the MLR3: Clarify, Critique, and Correct is to provide students the opportunity to analyze, reflect on, and develop "a piece of mathematical writing that is not their own." The purpose of MLR5: Co-craft Questions is to help students explore content before producing answers, to

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			create "the language of mathematical questions themselves," and to "analyze how different mathematical forms and symbols can represent different situations." In addition, each Mission Overview includes a list of "New or Recently Introduced Terms" along with "Familiar Terms and Symbols" and definitions that students use across the Mission. Sample student responses include the use of mathematical language. Questions and prompts are crafted to encourage use of mathematical terminology. For example, guidance in the Mission 1 Overview, specifically for Lessons 1-4, emphasizes the importance of vocabulary as it relates to place value. Students "recognize that each sequence of three digits is read as hundreds, tens, and ones followed by the naming of the corresponding base thousand unit" and "develop their understanding of millions by building knowledge of the pattern of times ten in the base ten system on the place value chart." In order to do so, students need to develop the meaning of the terms as they relate to position and value.
	4d) There are teacher-directed materials that **explain the role of the practice standards** in the classroom and in students' mathematical development.	**No**	Materials do not include teacher-directed materials that explain the role of the practice standards in the classroom and in students' mathematical development. The Course Guide states that the materials provide students "regular opportunities to engage in and develop the Standards for

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			Mathematical Practice;" and that the MLRs support students' development of the practices. However, explicit teacher guidance is not provided at the lesson level to support teachers in ensuring that students develop the practices and understand the correlation between the content standards and the mathematical practices.
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.	**Yes**	Materials provide all students extensive work with grade-level problems. Students engage in whole group and/or small group lessons with the teacher and their peers, which is followed by a self-paced Independent Digital Lesson. During the whole/small group lessons, students engage in a Warm-Up activity, a Concept Exploration, and a Wrap-Up activity. During the Concept Exploration, the teacher facilitates mathematical discourse among students as they move through a series of scaffolded math problems that progress towards the overall objective of the lesson. In the Independent Digital Lesson, students continue to explore and develop concepts during Guided Practice and apply what they learn in the Independent Practice section of the Independent Digital Lesson. Students can also complete a Bonus section that addresses the focus standard of the lesson. The class then engages in a Lesson Synthesis as the teacher guides students

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			through discussion to process their learning and to "surface any misconceptions or misunderstandings." This activity is followed by an Exit Ticket in which students demonstrate their understanding of the lesson. The materials also include Optional Problem Sets and Optional Homework for additional practice with lesson content. For example, in Mission 3, Lesson 9, students multiply three- and four-digit numbers by one-digit numbers using the standard algorithm. Students use place value charts and the standard algorithm during the Concept Exploration in both the whole group and Digital Lesson. Students then complete several problems in the Tower of Power activity in the Independent Practice section of the Independent Digital Lesson. Students complete several problems to demonstrate their understanding of the content of the lesson, which is adaptive and based on their ability to complete the problems correctly. Students have the option to complete the Bonus section of the Independent Digital Lesson, as well. Students then complete an Exit Ticket that includes three multi-digit multiplication problems. The Problem Set includes additional problems for students to apply their learning. The Problem Set includes an additional 10 multi-digit multiplication problems followed by five word problems involving multi-digit multiplication. The

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			Optional Homework for the lesson includes an additional 15 problems.
	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.	**Yes**	Materials relate grade-level concepts explicitly to prior knowledge from earlier grades and courses and are designed so that prior knowledge is extended to accommodate new knowledge. Lessons are appropriately structured and scaffolded to support student mastery. Each Mission consistently relates lesson content to previous grade-level material and standards in a way that helps the student progress to meet the current grade-level standard(s). In the Fluency portion of each lesson, students access prior knowledge before beginning grade-level work in order to prepare for practicing and extending their knowledge during the lesson. The small group session coupled with the Digital Lesson supports student proficiency of grade-level standards by connecting and extending prior knowledge to support students in accessing grade-level content. In Mission 5, Lesson 1, students use various diagrams that are partitioned into different fractional portions to identify and count the sections using unit fractions (LSSM 3.OA.A.3). This Grade 3 review prepares students to decompose Grade 4 fractional models in order to generate equivalent fractions, as well as add/subtract fractions (LSSM 4.NF.A.1 and 4.NF.A.3). In Mission 1, Lesson 7, students engage in a fluency activity to review content from the

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			previous lesson (LSSM 4.NBT.A.1). The activity "synthesizes skip-counting fluency with Lesson 6's content and applies it in a context that lays the foundation for rounding multi-digit numbers to the thousandths place" (LSSM 4.NBT.A.3).
	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.	**Yes**	The materials prompt students to produce answers in a variety of ways. Throughout the lessons, students use concrete and digital manipulatives, various models, and pictorial representations. Students create models such as tape diagrams, arrays, equations, tables, and graphs to represent solutions in a variety of ways. Students answer questions and provide explanations and/or justifications to support their answers. For example, in Mission 1, Lesson 16, students construct a tape diagram when solving the following problem: "An amusement park's goal is to sell 1 million tickets within the first four months of its being open. How many more tickets does the park need to sell in Month 4 to reach this goal?" In Mission 2, Topic A, Lesson 3, Word Problem, students draw a tape diagram to illustrate the following situation: "A liter of water weighs 1 kilogram. The Lee family took 3 liters of water with them on a hike. At the end of the hike, they had 290 grams of water left. How much water did they drink? Draw a tape diagram, and solve using an algorithm or a simplifying strategy." In Mission 3, Lesson 16, students use the place value chart to model division with

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			remainders. The place value charts give students an opportunity to visualize the sharing of the dividend. In the End-of-Mission 7 Assessment, students solve the following word problem: "Baker ate $\frac{3}{4}$ pound of fried shrimp. Jadarius ate three times as much as Baker, and Darrick ate 20 ounces of fried shrimp. How many total ounces of fried shrimp did they eat altogether? Show your work and/or reasoning." Students draw a model or a tape diagram to justify their answer.
	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.	**Yes**	Materials include support for English Language Learners and other special populations. Materials are accessible for all learners, including English Language Learners, and include teacher guidance to help support English Language Learners. In addition, each Mission provides a link to materials in Spanish for the Mission Overview, Fluency, Word problems, small group lessons, assessments, Student Notes and Exit Tickets, Optional Problem Sets, and Optional Homework Assignments. The lessons include audio support for students during the Independent Digital Lessons, in addition to the closed captioning feature. Visual supports appear throughout the lessons in Discovery Canyon, Math Chat, Tower of Power, and Bonus. The assessments available in Spanish allow the teacher to assess the student's understanding of the standards without language barriers. The Course Guide describes Design Features

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			That Support All Learners, such as consistent lesson structures, concepts developing over time from concrete to abstract, opportunities to apply mathematics to real-world context, access strategies, and physical math manipulatives. Accessible design features are included for students with disabilities, such as visual clarity through use of color, color contrast, font readability, volume consistency, assistive technology including text-to-speech, screen reader and Braille Translation Software, keyboard accessibility, and instructional accommodations including translation materials, guided notes and graphic organizers, read aloud, scribe, separate location or quiet place, breaks, checklists and other self-monitoring activities, and physical math manipulatives. Multiple Means of Representation, Engagement, and Action and Expression sections are provided throughout the lessons to support all learners.
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.	**Yes**	Multiple assessment opportunities are embedded into content materials that measure student mastery of standards that reflect the balance of the standards as presented in materials. Every Mission includes a Mid-Mission and an End-of-Mission Assessment that address the focus standards. The Mission-level assessments assess student understanding of content for the Mission. Level-lesson assessments include the digital Tower of

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
☒ Yes ☐ No			Power and paper-based Exit Tickets. The Tower of Power is a scaffolded assessment that focuses on the content of the lesson and is administered at the end of each Independent Digital Lesson. The assessment adapts to the students based on their ability to answer all the questions correctly. The Exit Tickets also focus on the content of the lesson and are administered at the close of each lesson.
	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.	**Yes**	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-appropriate way. Students are given a variety of opportunities to use procedural skills, fluency, and mathematical reasoning in real-world situations on the Exit Tickets and the assessments provided in each of the seven Missions. The assessment items are aligned with the components of rigor. Within the assessments, students provide explanations, use precision in mathematical statements, and utilize various models. For example, Mission 5, End-of-Mission Assessment, item 6 assesses LSSM 4.NF.B.3d and addresses the application expectation of the standard. Students use a table containing

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			several mixed numbers that represent the wingspan of different butterflies to answer the following question: "Amashi wants to display a Postman and Viceroy side by side in a photo box with a width of 6 inches. Will these two butterflies fit? Explain how you know." Mission 2, End-of-Mission Assessment, items 1-2 assess LSSM 4.MD.D.1 and address the conceptual understanding and procedural skill and fluency expectation of the standard. In Item 1, students complete three conversion charts including length, mass, and capacity. In Item 2, students find the sum or difference of measurements, such as 493 km 43 m + 17 km 57 m. Mission 5, Mid-Mission Assessment, item 1, assesses LSSM 4.G.A.1 and addresses the conceptual understanding and procedural skill and fluency expectation of the standard. Students draw a figure using points and lines and fluently identify angles within the figure.
	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.	**Yes**	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. The Mid-Mission Assessment and End-of-Mission Assessment Answer Keys provide a rubric for each assessment which checks for specific, observable, and measurable

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			criteria. The Answer Keys provide student exemplar responses for each item, as well as the aligned standard(s). The rubrics provide actionable feedback that teachers can use to respond to student learning and misconceptions. For each item, a Progression Towards Understanding shows the "gradually increasing learnings that students develop on their way to full understanding," categorizing student understanding as Initiating Understanding, Developing Understanding, Nearing Understanding, and Full Understanding. The Course Guide notes that "if unfinished learning is evident on Mission-level assessments, teachers should move forward with additional supports and address misconceptions during collaborative Concept Exploration and on Flex Days" using the foundational lessons. In addition, the Tower of Power activity provides real time support if a student makes a mistake. Students have the opportunity to correct their mistakes and continue through the assessment. The Tower Alerts Report helps teachers identify where students struggled and whether or not they were able to complete the independent practice of the lesson. If a student struggles in the activity, the student receives real-time, scaffolded support through Boosts. Tower Alerts notify teachers when students struggle multiple times and suggest foundational support. For example, in

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			Mission 1, the End-of-Mission Assessment measures student understanding of LSSM 4.OA.A.3, 4.NBT.A.1, 4.NBT.A.2, 4.NBT.A.3 and 4.NBT.B.4. According to the rubric, full understanding of item 1a, which assesses LSSM 4.NBT.B.4, is achieved if "The student provides the correct answer of 190,180 and provides sufficient evidence of using the standard algorithm in addition to support her answer." However, if "The student is unable to accurately calculate the sum but produces work that serves as evidence that he/she is initiating understanding of adding multi-digit whole numbers. For example, the student correctly sets up the addition problem to be solved using the standard algorithm but is unable to accurately complete the addition."
	6d) Materials provide 2-3 **comprehensive assessments** (interims/benchmarks) that measure student learning up to the point of administration.	**No**	Materials do not provide comprehensive assessments (interims/benchmarks) that measure student learning up to the point of administration. Mid-Mission and End-of-Mission Assessments assess students on the content addressed in that particular Mission, but do not include content from other Missions. Three interim assessments are available for separate purchase through ANet to measure learning across multiple Missions but are not included in the core materials.
7. ADDITIONAL INDICATORS OF QUALITY:	**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	**Yes**	The content can be reasonably completed within a regular school year, and the pacing of content allows for maximum student understanding. The materials

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
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	guidance about the amount of time a task might reasonably take.		include seven Missions addressed over a 36-week period. Guidance suggests that teachers address four lessons per week and reserve a fifth Flex Day for differentiated instruction or assessment days.
	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.	**Yes**	The materials are easy to use and well-organized for students and teachers. Guidance is provided for lesson planning and instructional delivery, lesson flow, questions to help promote student thinking, and expected student outcomes. The Course Guide provides a scope and sequence, pacing guidance, explicit instructions for implementing the materials, guidance for supporting diverse learners, and guidance on how to use assessments and reports. In addition, the Course Guide details instructional routines throughout the lessons, as well as strategies for multilingual learners. The consistent structure of each lesson includes a Warm-Up, Concept Exploration, and Wrap -Up. Guidance for planning for a Mission suggests that teachers familiarize themselves with the math of the Mission, work through a selection of the Independent Digital Lessons, and check the class reports to review student progress. Guidance for Core Days and Flex Days is provided so the teacher can meet all student needs. As students complete the Digital Lesson, the organization is easy to follow and understand, as each lesson follows the same structure. Students begin

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			with two fluency activities, then engage in Guided Practice, followed by Independent Practice. Students have the option to engage in the Bonus activity for enrichment if time allows. Every Mission includes Student Notes for Digital Lessons and Exit Tickets which allow the students to easily record notes during the lesson and complete Exit Tickets at the end of the lessons. Optional Problem Sets and Homework are easily accessible on the platform, along with Teacher Lesson Materials, Assessment Answer Keys, and Foundational Guidance.
	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.	**Yes**	Materials include unit and lesson study tools for teachers. Each lesson provides an explanation of the lesson, including the standards and objectives. Resources provide sufficient background knowledge to support teachers and are well-organized and easy to utilize. Tutorial videos for implementing the materials in class are available for teachers. These videos are located in the PD tab on the Zearn homepage. Each Mission contains a Curriculum Study, which is located in the PD section that is accessible from the homepage. These studies are designed to build content knowledge for teaching the grade-level Mission. The teacher watches a video that explains the fluencies, word problems, and lessons contained in the Mission and answers questions when prompted throughout these videos. An additional three-hour training course that

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			explains the Zearn rotational model is available. This series of three videos largely focuses on daily scheduling and monitoring students to ensure their success. Additional study tools are located in the Mission Overviews. The Mission Overviews provide a detailed breakdown of the mathematics for the Mission and topic. Each Mission Overview also provides a Curriculum Map for Grades K-5, objectives for each lesson in the Mission, an overview of each topic covered in the Mission, math terminology, and the focus standard for the Mission. Each Mission includes a Foundational Guidance section that provides the standards and lesson objectives for each topic in the Mission and connects a foundational content section. The foundational content shows the teacher where to find additional support from the previous grade-level lessons for a particular objective. The Classroom Supports tab provides printable weekly schedules, getting started checklists, example anchor charts, and lesson trackers.
	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. Foundational Guidance is provided for each topic. The guidance provides the objective for each lesson within the topic, as well as foundational content from previous grade levels or prior lessons. For example, Mission 3, Topic A focuses on multiplicative comparisons word

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			problems. Foundational content lists the following prerequisite skills from Grade 3 needed to access grade-level content: "Find the area of a rectangle through multiplication of the side lengths" and "Solve a variety of word problems involving area and perimeter using all four operations." Mission 4, Topic C focuses on problem solving with the addition of angle measures. Foundational content lists the following prerequisite skill from Grade 2 needed to access grade-level content: "Use math drawings to represent additions with up to two compositions and relate drawings to a written method."
	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, on-grade-level work. There are no diagnostic tests, pre-assessments, or any other materials that help teachers identify students who need prerequisite work. Although student reports are provided, they are provided after lesson and Mission completion instead of before the learning takes place. For example, the materials include a Tower of Power activity during independent practices which provide a Boost when a student makes a mistake. The Boost breaks down the problem to help students understand what they did incorrectly. If a student continues to make mistakes after multiple attempts, the teacher will receive an alert suggesting

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			differentiated support for that student. However, the activity occurs after the lesson has been taught. Tools to identify students that need prerequisite work to access current, grade-level instruction prior to engaging in the on grade-level content are not provided.
	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. Each Mission contains Foundational Guidance to identify which prerequisite skills and supporting grade-level content to utilize for scaffolding and addressing unfinished learning. The guidance recommends previous grade-level lessons or prior lessons within the same grade level to use for prerequisite support. In addition, students practice prerequisite skills and concepts in lesson-aligned fluency activities such as Sprints, Multiply Mania, Pair Compare, Totally Times, Fraction Action, Mix and Match, and Blasts. For example, in Mission 1, Topic A: Place Value of Multi-Digit Whole Numbers focuses on LSSM 4.NBT.A.1, 4.NBT.A.2, and 4.OA.A.1. The materials suggest assigning Grade 2, Mission 3, Lesson 13 in addition to Grade 2, Mission 3, Lessons 11-12 for additional support for Lessons 1-3. For Lesson 4 on the same topic, the materials suggest assigning Grade 2, Mission 3, Lesson 14.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
	7g) Materials provide **clear guidance and support** for teachers about the structures that allow students to appropriately address unfinished learning using prerequisite work.	**Yes**	Materials provide clear guidance and support for teachers about the structures that allow students to appropriately address unfinished learning using prerequisite work. The Course Guide suggests that teachers use Flex days to address individual needs. The materials provide just-in-time supports embedded in the Digital Lessons and recommend foundational lessons aligned to grade-level content within each lesson. The Tower of Power activity assesses student learning during Independent Practice and automatically launches a Boost with support and scaffolding from prior grade levels or prior lessons. If students continue to struggle during the Tower of Power, the teacher receives a Tower Alert Report that helps the teacher identify the part of the lesson in which a student struggled. This report helps teachers identify which students need additional support and recommends foundational lessons for each student.

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[4]	1. Focus on Major Work	**Yes**	Materials devote the majority of time to the major work for the grade. Materials

[4] Must score a "Yes" for all Non-negotiable Criteria to receive a Tier I or Tier II rating.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			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 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 fluency 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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			and critique the arguments of others concerning key grade-level mathematics detailed in the content standards. Materials explicitly attend to the specialized language of mathematics. However, materials do not 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[5]	5. Alignment Criteria for Standards for Mathematical Content	**Yes**	Materials provide all students extensive work with grade-level problems. Materials relate grade-level concepts explicitly to prior knowledge from earlier grades and courses. The materials are designed so that prior knowledge is extended to accommodate new knowledge, building to core instruction, on grade-level work. Lessons are appropriately structured and scaffolded to support student mastery. The materials prompt students to produce answers in a variety of ways. Materials include support for English Learners and other special populations.
	6. Quality of Assessments	**Yes**	Multiple assessment opportunities are embedded into content materials that measure student mastery of standards that reflect the balance of the standards as presented in materials. Assessment items include a combination of tasks that require students to demonstrate conceptual understanding, demonstrate procedural skill and fluency, and apply

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

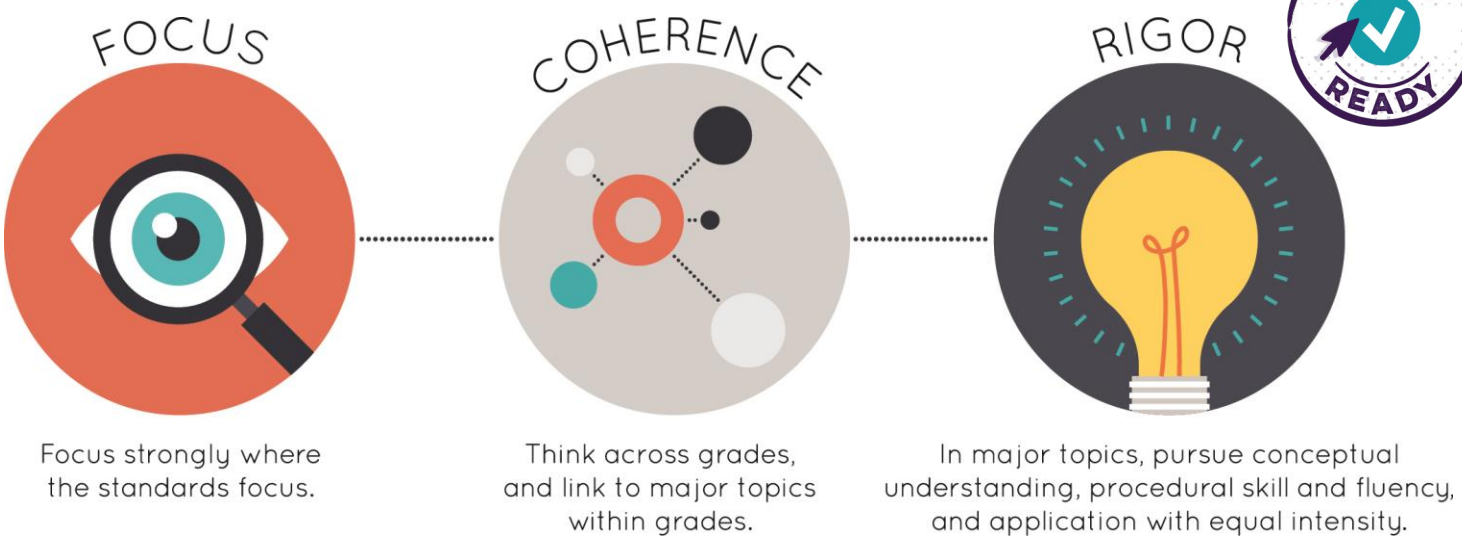
CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			mathematical reasoning and modeling in real-world context. Assessment items require students to produce answers and solutions, arguments, explanations, and models in a grade-appropriate way. Scoring guidelines and rubrics align to standards, incorporate criteria that are specific, observable, and measurable, and provide sufficient guidance for interpreting student performance, misconceptions, and targeted support to engage in core instruction. However, materials do not provide comprehensive assessments (interims/benchmarks) that measure student learning up to the point of administration.
	7. Additional Indicators of Quality	**Yes**	The content can be reasonably completed within a regular school year and the pacing of content allows for maximum student understanding. The materials are easy to use and well-organized for students and teachers. Guidance is provided for lesson planning and instructional delivery, lesson flow, questions to help promote student thinking, and expected student outcomes. Materials include unit and lesson study tools for teachers. Materials identify prerequisite skills and concepts for the major work of the grade. However, materials do not provide guidance to help teachers identify students who need prerequisite work to engage successfully in core instruction, on-grade-level work. Materials provide targeted, aligned,

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			prerequisite work for the major work of the grade, directly connected to specific lessons and units in the curriculum. Materials provide clear guidance and support for teachers about the structures that allow students to appropriately address unfinished learning using prerequisite work.
FINAL DECISION FOR THIS MATERIAL: **Tier I, Exemplifies quality**			

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

FULL CURRICULUM
Instructional Materials

Strong mathematics instruction contains the following elements:



Title: **Zearn Math**

Grade/Course: **5**

Publisher: **Zearn**

Copyright: **2023**

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

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

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

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

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

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

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

Tier 1 ratings receive a "Yes" for all Non-negotiable Criteria and a "Yes" for each of the Additional Criteria of Superior Quality.
Tier 2 ratings receive a "Yes" for all Non-negotiable Criteria, but at least one "No" for the Additional Criteria of Superior Quality.
Tier 3 ratings receive a "No" for at least one of the Non-negotiable Criteria.

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
Section I: Non-negotiable Criteria of Superior Quality: Materials must meet Non-negotiable Criteria 1 and 2 for the review to continue to Non-negotiable Criteria 3 and 4. Materials must meet all of the Non-negotiable Criteria 1-4 in order for the review to continue to Section II.			
Non-negotiable **1. FOCUS ON MAJOR WORK[2]:** Students and teachers using the materials as designed devote the large majority[3] 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 the majority of time to the major work for the grade. Of the 144 lessons, 75% of instructional days are devoted to major work of the grade. Specifically, 59% of lessons are spent on major work alone, 16% of lessons are spent on a combination of major standards and supporting/additional standards, 18% of lessons are spent on supporting/additional standards, and 7% of lessons are marked as optional or enrichment lessons.
	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. All lessons are aligned to grade level content unless otherwise noted in the Louisiana implementation guidance. Lessons that do not explicitly align with Grade 5 Louisiana Student Standards for Mathematics (LSSM) are clearly marked as optional or enrichment lessons in the Louisiana implementation guidance. For example, Mission 6, Lesson 18 focuses on drawing symmetrical figures

[2] For more on the major work of the grade, see Focus by Grade Level.
[3] The materials should devote at least 65% and up to approximately 85% of class time to the major work of the grade with Grades K–2 nearer the upper end of that range, i.e., 85%.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			on the coordinate plane (LSSM 6.G.A.3) which is not included in the Grade 5 LSSM. The lesson is labeled as optional or enrichment lessons in the Louisiana implementation guidance. The assessments for Mission 6 do not assess LSSM 6.G.A.3. The majority of the materials spend an appropriate amount of time on grade-level work while assessing the grade-level standards. Each lesson provides grade-level fluency work, guided practice, and independent practice to assess students before moving to the next lesson. Each Mission also provides a Mid-Mission Assessment and an End-of-Mission Assessment. The majority of lessons directly align to LSSM for Grade 5. At times, materials review content from prior grade levels, but the reviews are used to connect previous learning to grade-level learning and do not take away from the focus of the on grade-level coursework. For example, in Mission 3, students make equivalent fractions with number lines, area models, and numbers in Lesson 1 (LSSM 4.NF.A.1) and make equivalent fractions with sums of fractions with like denominators in Lesson 2 (LSSM 4.NF.B.3 and 4.NF.B.4). The lessons do not detract from grade-level content, but provide the opportunity for students to connect and apply previous grade-level understanding in the lessons that follow, which address LSSM 5.NF.A.1 and 5.NF.A.2. Students are not assessed on the

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			Grade 4 standards. Implementation guidance notes that while the lessons are not representative of the full scope of the standard, the lessons build towards full understanding of LSSM 5.NF.A.1. Guidance in the Teacher Lesson Materials also states that "This lesson could be optional if students are comfortable with material from 4th grade."
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. Supporting standards appear in multiple lessons in Missions 1, 2, 4, and 6. The materials allow students adequate time to delve into lessons/activities that develop conceptual understanding, procedural skills, and fluency of Measurement and Data (MD) and Geometry (G) standards as they relate to major work of the grade. In Mission 1, Lessons 1-3, students develop an understanding of multiplicative patterns on the place value chart (LSSM 5.NBT.A.1). This learning is reinforced in Lesson 4 as students apply their knowledge of patterns with zeros to convert measurements within the metric system (LSSM 5.MD.A.1). For example, in the Mission 1, Lesson 4 Problem Set, students combine base ten conceptual knowledge with converting metric measurements in the following problem: "The length of the bar for a high jump competition must always be 4.75 m. Express this

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			measurement in millimeters. Explain your thinking." Mission 2, Lessons 13-15 connect supporting LSSM 5.MD.A.1 to major LSSM 5.NBT.B.5 and 5.NBT.7. In Topic A of the Mission, students develop mental strategies for multi-digit whole number multiplication, and in Topic B, students progress towards multiplying multi-digit whole numbers using the standard algorithm (LSSM 5.NBT.B.5). In Topic C, students apply this learning as they engage with decimal multi-digit multiplication (LSSM 5.NBT.B.7). Topic D, Lessons 13-15 reinforces these concepts as students engage in measurement word problems with whole number and decimal multiplication (LSSM 5.MD.A.1). For example, students solve the following problem in Lesson 13: "A crate of apples weighs 5.7 kilograms. Convert the weight to grams. A sack holds 56.75 pounds of sand. Convert the weight to ounces." In Lesson 15, students solve the following problem: "When making a batch of orange juice for her basketball team, Jackie used 5 times as much water as concentrate. There were 32 more cups of water than concentrate. How much juice did she make in total? She poured the juice into quart containers. How many containers could she fill?" Throughout the lessons, students fluently multiply multi-digit whole numbers and decimals as they convert to solve real-world measurement problems. In Mission 4, Lessons 6-8,

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			students interpret finding a fraction of a set as multiplication of a whole number by a fraction (LLSM 5.NF.B.4a). In Lesson 9, this learning is reinforced as students find a fraction of a measurement and solve word problems (LSSM 5.MD.A.1). For example, in Lesson 7 Homework, students solve the following problem: "Annabel and Eric made 17 ounces of pizza dough. They used $^{5}/_{8}$ of the dough to make a pizza and used the rest to make calzones. What is the difference between the amount of dough they used to make pizza and the amount of dough they used to make calzones?"
	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, Mission 2, Topics A-B connect the Number and Operations in Base Ten (NBT) and Operations and Algebraic Thinking (OA) domains. In Lesson 1, students multiply multi-digit whole numbers and multiples of ten using place value patterns (LSSM 5.NBT.A.2) and the distributive and associative properties (LSSM 5.OA.A.1) to develop strategies for estimating multi-digit products. Lesson 8 makes a similar connection, as students round two three-digit numbers and multiply to find the product (LSSM 5.NBT.A.2 and 5.OA.A.1). Next, they multiply the actual three-digit numbers using a standard algorithm (LSSM

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			5.NBT.B.5) and assess the reasonableness of the product based on the estimation. For example, when multiplying 4,902 x 408, students round the numbers to 5,000 x 400 and rewrite as (5 x 1,000) x (4 x 100) and as (5 x4) x 100,000 to check for reasonableness of the product. Mission 4, Topic E connects the Number and Operations - Fractions (NF) and Number and Operations in Base Ten (NBT) domains. During Lesson 20, students convert mixed unit measurements and solve multi-step word problems (LSSM 5.MD.A.1 and 5.NF.B.6). For example, students solve, "A recipe calls for ¾ lb of cream cheese. A small tub of cream cheese at the grocery store weighs 12 oz. Is this enough cream cheese for the recipe?"
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. The materials include high quality conceptual problems and discussions which develop students' conceptual understanding over time and provide students with several opportunities to demonstrate their conceptual understanding. The materials adhere to the expectations of conceptual understanding where appropriate and in alignment with the standards. Throughout the materials, students build conceptual understanding through the use of concrete and digital manipulatives,

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			multiple means of representation, multiple strategies, sentence frames, tools, and templates. In addition, students build conceptual understanding with their teacher and their peers in Collaborative Concept Exploration through mathematical discourse, as well in the self-paced Independent Digital Lessons. Students express their understanding in multiple ways, such as through creating models, critiquing the arguments of others, and interpreting solutions to problems. For example, in Mission 2, Lesson 1, students multiply multi-digit whole numbers and multiples of ten using place value patterns and the distributive and associative properties (LSSM 5.NBT.A.2). During the lesson, students multiply the whole numbers and state the unit in the product. For example, when solving 4 x 30, students write 4 x 3 tens = 12 tens, show 12 tens on their place value chart, and say 12 tens in standard form as 120. Students continue with multiplying tens by tens, tens by hundreds, and tens by thousands. In Mission 2, Lesson 6, Small Group Lesson, students connect visual models and the distributive property to partial products of the standard algorithm (LSSM 5.NBT.B.7). In problem 1, students first represent units using the tape diagram and then the area model to multiply 21 x 5. In problem 2, students find the product of 23 x 31 by using the area model and the standard algorithm.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			The teacher leads mathematical discourse to help students make the connection between the area model and partial products. For example, students explain the connections between (30 x 23) + (1 x 23), the area model, and the algorithm. In Mission 4, Lesson 4, students use tape diagrams to model and solve word problems involving the division of whole numbers leading to answers in the form of fractions and mixed numbers (LMSS 5.NF.B.3). Students begin the lesson by solving: "Eight tons of gravel is equally divided between 4 dump trucks. How much gravel is in one dump truck?" They first say the division sentence (8 ÷ 4 = 2), then model the problem with a tape diagram. Students determine that 4 units equal 8, so 1 unit is equal to 8 ÷ 4, which equals 2. Students then relate this concept to solve the problem involving 5 tons of gravel that is divided between 4 dump trucks. Students determine that 4 units equal 5, so 1 unit equals 5 ÷ 4, which equals 5/4 or 1 1/4.
	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. The materials are designed in a way that allows students to acquire procedural skill and fluency through a progression of learning over time. Students begin every lesson with Fluency Practice, a Warm-Up that provides students the opportunity to strengthen procedural fluency. During Fluency

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
	algebraic operations is provided in order for students to have the foundation for later work in algebra.		Practice, students practice previously learned skills and prepare to practice and extend those skills in the current lesson. Every Independent Digital Lesson includes Number Gym, which engages students in individually adaptive fluency practice. In addition, each Independent Digital Lesson also includes a fluency-aligned activity, such as Sprints, Pair Compare, Totally, Times, and Fraction Action. The fluency practices flow with the lessons and connect with the appropriate standards. The materials also provide several opportunities to build procedural skills through optional problem sets and homework problems. For example, students first complete the Number Gym activity before beginning the major content of the lesson. In Mission 4, Lesson 14, after engaging in Number Gym, students complete two rounds of a Sprint, attempting to beat their original score in round 2 by answering as many problems as they can in ninety seconds. The problems include multiplying whole numbers by fractions. When time is up, students check their work to see which problems they answered correctly and incorrectly and retry the problems that they answered incorrectly (LSSM 5.NF.B.4). In Mission 5, Lesson 16, students sort polygons by the number of sides, then sort quadrilaterals into trapezoids and non-trapezoids. Students then draw a trapezoid according to its

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			definition and measure and label its angles. During the Exit Ticket, students answer: "What attribute must be present for a quadrilateral to also be a trapezoid?" (LSSM 5.G.B.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 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. Throughout the materials, problems provide students the opportunity to apply their conceptual understanding and/or procedural skills in a real-world context in which students model, reason, and justify responses to demonstrate their understanding. For example, in Mission 5, Lesson 4, students solve the following problem: "An adult sweater is made from 2 pounds of wool. This is 3 times as much wool as it takes to make a baby sweater. How much wool does it take to make a baby sweater? Use a tape diagram to solve." (LSSM 5.NF.B.3). In Mission 5, Lesson 6, students use a diagram of a tank with two distinctly different shades of gray representing oil and water to answer the following problem: "A rectangular tank with a base area of 24 cm^2 is filled with water and oil to a depth of 9 cm. The oil and water separate into two layers when the oil rises to the top. If the thickness of the oil layer is 4 cm, what is the volume of the water?" Students use their knowledge of the volume formula, as well as the diagram, to make sense of the problem (LSSM 5.MD.C.5c).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
	Required **3d)** ***Balance:*** The three aspects of **rigor** are not always treated together and are not always treated separately.	**Yes**	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 address the various aspects of rigor appropriately, depending on the standard expectations and the balance needed to address the rigor component of the standard. For example, Mission 1, Lesson 5 incorporates conceptual understanding and procedural skill and fluency as students name decimal fractions in expanded, unit, and word forms by applying place value reasoning (LSSM 5.NBT.3). Students begin the lesson by representing one-thousandth and three-thousandths in standard, expanded, and unit forms, then do the same with thirteen-thousandths. Students represent thirteen-thousandths in a variety of ways, such as 0.013 = 13/100; 13/100 = 1 x 0.01 x 3 x 0.001; and one-hundredth and three-thousandths. At the end of the lesson, students express nine-thousandths as a decimal, twenty-nine-thousandths as a fraction, and 24.357 in words. In Mission 2, Lesson 24, students apply conceptual understanding and procedural skill in fluency as they complete the Word Problem. Students use data from a runner's log with various bits of missing information to fill in the missing daily mileage, days run, and total miles run. While solving the problem, students demonstrate their understanding of mathematical concepts, operations, and

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			relations and practice basic skills (LSSM 5.NBT.B.6 and 5.NBT.B.7). Mission 5, Lesson 7 integrates all three aspects of rigor into the lessons and activities. During the lesson, students apply conceptual understanding and procedural skill and fluency in the following real-world application problem: "A storage company advertises three different choices for all your storage needs: 'The Cube,' a true cube with a volume of 64 m^3; 'The Double' (double the volume of 'The Cube'); and 'The Half' (half the volume of 'The Cube'). What could be the dimensions of the three storage units? How might they be oriented to cover the most floor space? The most height?" (LSSM 5.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 the students in development of the math practices, contributing to student's habits of mind as students develop fluency, procedural skills, and conceptual understanding. The materials are clearly designed in a way that connects the practice standards and content standards. The practice standards are not taught in isolation and are taught to the full extent of the standards. For example, in Mission 2, Lesson 9, students make sense of problems (MP.1), reason abstractly and quantitatively (MP.2), and

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			look for structure (MP.7) and repeated reasoning (MP.8) as they solve the following problems: "Gemma and Leah are both jewelry makers. Gemma made 106 beaded necklaces. Leah made 39 more necklaces than Gemma. At a recent craft fair, Gemma sold each of her necklaces for $14. Leah sold each of her necklaces for $10 more. Who made more money at the craft fair? How much more?" Throughout Mission 3, students use various models (MP.4), such as area models, number lines, tape diagrams, and fraction models, to build conceptual understanding of fractions (LSSM 5.NF.A.2). As students work through the Mission, they use appropriate tools to solve problems (MP.5), construct viable arguments regarding their own solutions/explanation of thinking, and critique the reasoning of others (MP.3). For example, in Lesson 8, students solve the following problem, "Andre says that 5 ¾ + 2 ¼ = 7 ½ because 7 4/8 = 7 ½. Identify his mistake. Draw a picture to prove that he is wrong." During the problem, students critique another student's work (MP.3) and use an appropriate tool strategically (MP.5) to support their thinking (MP.1).
	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. Throughout each Mission, students have

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
	as a form of argument, attending thoroughly to places in the standards that explicitly set expectations for multi-step problems.		the opportunity to critique problems, correct work, and justify their reasoning. For example, in Mission 4, End-of-Mission Assessment, item 4, students solve the following problem: "Write a division expression that matches the situation. Then draw a diagram and solve. Mark and Jada share 5 yards of ribbon equally. How much ribbon will each get?" Part b states, "Write a division expression that matches the situation. Then draw a diagram and solve. It takes half of a yard of ribbon to make a bow. How many bows can be made with 5 yards of ribbon?" Students then solve part c of the problem, which states, "Could either of the problems also be solved by using ½ x 5? If so, which one(s)? Explain your thinking." Students explain their reasoning and show examples for all three parts of this problem (LSSM 5.NF.6 and 5.MD.2). In Mission 2, Lesson 2, the Problem Set describes how two different students used different methods to solve the same problem. Students explain the reasons why both methods are correct. The problem states, "Carly and Gina read the following problem in their math class: Seven cereal bars were shared equally by 3 children. How much did each child receive? Carly and Gina solve the problem differently. Carly gives each child 2 whole cereal bars and then divides the remaining cereal bar among the 3 children. Gina divides all the cereal bars into thirds and

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			shares the thirds equally among the 3 children. a. Illustrate both girls' solutions. b. Explain why they are both right." In Mission 5, Lesson 1, students compare and analyze the work of two students to determine who has solved the problem correctly and explain how he/she came to that conclusion. The problem states: "Jackie and Ron both have 12 centimeter cubes. Jackie builds a tower 6 cubes high and 2 cubes wide. Ron builds one 6 cubes long and 2 cubes wide. Jackie says her structure has the greater volume because it is taller. Ron says that the structures have the same volume. Who is correct? Draw a picture to explain how you know." (LSSM 5.MD.C.3).
	Required **4c)** Materials explicitly attend to the **specialized language** of mathematics.	**Yes**	Materials explicitly attend to the specialized language of mathematics. The Course Guide describes Mathematical Language Routines (MLR) that are used throughout the materials to support students' mathematical language development while they learn mathematical practices and content. The guide states that the feedback generated by the routines helps "students revise and refine not only the way they organize and communicate their own ideas, but also ask questions to clarify their understanding of others ideas." For example, the purpose of the MLR3: Clarify, Critique, and Correct is to provide students the opportunity to analyze, reflect on, and develop "a piece of mathematical writing that is not their

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			own." The purpose of MLR5: Co-craft Questions is to help students explore content before producing answers, to create "the language of mathematical questions themselves," and to "analyze how different mathematical forms and symbols can represent different situations." In addition, each Mission Overview includes a list of "New or Recently Introduced Terms" along with "Familiar Terms and Symbols" and definitions that students use across the Mission. Sample student responses include the use of mathematical language. Questions and prompts are crafted to encourage use of mathematical terminology. For example, Mission 5, which consists of geometry concepts such as volume, area, and shapes, includes lessons that direct students to derive formulas for volume and area, as well as apply their knowledge of operations with decimals and fractions. Students develop geometric terminology in order to identify and recognize what shape or figure they manipulate and what operation(s) will successfully accomplish the task. For example, Lesson 15, Problem Set, item 4 states, "Some wire is used to make 3 rectangles: A, B, and C. Rectangle B's dimensions are ⅗ cm larger than Rectangle A's dimensions, and Rectangle C's dimensions are ⅗ cm larger than Rectangle B's dimensions. Rectangle A is 2 cm by 3 ⅕ cm. a. What is the total area of

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			all three rectangles? b. If a 40-cm coil of wire was used to form the rectangles, how much wire is left?"
	4d) There are teacher-directed materials that **explain the role of the practice standards** in the classroom and in students' mathematical development.	**No**	Materials do not include teacher-directed materials that explain the role of the practice standards in the classroom and in students' mathematical development. The Course Guide states that the materials provide students "regular opportunities to engage in and develop the Standards for Mathematical Practice;" and that the MLRs support students' development of the practices. However, explicit teacher guidance is not provided at the lesson level to support teachers in ensuring that students develop the practices and understand the correlation between the content standards and the mathematical practices.
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.	**Yes**	Materials provide all students extensive work with grade-level problems. Students engage in whole group and/or small group lessons with the teacher and their peers, which is followed by a self-paced Independent Digital Lesson. During the whole/small group lessons, students engage in a Warm-Up activity, a Concept Exploration, and a Wrap-Up activity. During the Concept Exploration, the teacher facilitates mathematical discourse among students as they move through a series of scaffolded math problems that progress towards the overall objective of

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			the lesson. In the Independent Digital Lesson, students continue to explore and develop concepts during Guided Practice and apply what they learn in the Independent Practice section of the Independent Digital Lesson. Students can also complete a Bonus section that addresses the focus standard of the lesson. The class then engages in a Lesson Synthesis as the teacher guides students through discussion to process their learning and to "surface any misconceptions or misunderstandings." This activity is followed by an Exit Ticket in which students demonstrate their understanding of the lesson. The materials also include Optional Problem Sets and Optional Homework for additional practice with lesson content. For example, in Mission 2, Lesson 9, students fluently multiply multi-digit whole numbers using the standard algorithm to solve multi-step word problems. Students relate tape diagrams, equations, and the standard algorithm during the Concept Exploration in both the whole group and Digital Lesson. Students then complete several problems in the Tower of Power activity in the Independent Practice section of the Independent Digital Lesson. Students complete several problems to demonstrate their understanding of the content of the lesson, which is adaptive and based on their ability to complete the problems correctly. Students have the

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			option to complete the Bonus section of the Independent Digital Lesson, as well. Students then complete an Exit Ticket that includes a word problem with a four-part question involving multi-digit multiplication. The Problem Set includes additional problems for students to apply their learning. The Problem Set includes eight word problems involving multi-digit multiplication, and the Optional Homework for the lesson includes an additional eight word problems.
	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.	**Yes**	Materials relate grade-level concepts explicitly to prior knowledge from earlier grades and courses and are designed so that prior knowledge is extended to accommodate new knowledge. Lessons are appropriately structured and scaffolded to support student mastery. Each Mission consistently relates lesson content to previous grade-level material and standards in a way that helps the student progress to meet the current grade-level standard(s). In the Fluency portion of each lesson, students access prior knowledge before beginning grade-level work in order to prepare for practicing and extending their knowledge during the lesson. The small group session coupled with the Digital Lesson supports student proficiency of grade-level standards by connecting and extending prior knowledge to support students in accessing grade-level content. In the Sprint activity of the Fluency portion of

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			Mission 3, Lesson 1, students complete multiplication equations by filling in missing factors (LSSM 3.OA.A.4). This Grade 3 review prepares students to create equivalent fractions in order to add and subtract fractions with unlike denominators (LSSM 5.NF.A.1 and 5.NF.A.2b). In Mission 4, Lessons 2-5 focus on interpreting fractions as division (LSSM 5.NF.B.3). In previous lessons, students p build an understanding of equal sharing with area models (both concrete and pictorial) as it relates to whole numbers; however, in Mission 4, students "understand division of whole numbers with answers in the form of fractions or mixed numbers. During the Fluency Practice, students compare fractions with unlike denominators (LSSM 4.NF.A.2) and decompose fractions (LSSM 4.NF.A.3) to review previously learned concepts in order to prepare for the lesson.
	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.	**Yes**	The materials prompt students to produce answers in a variety of ways. Throughout the lessons, students use concrete and digital manipulatives, various models, and pictorial representations. Students create models such as tape diagrams, arrays, equations, tables, and graphs to represent solutions in a variety of ways. Students answer questions and provide explanations and/or justifications to support their answers. For example, in Mission 5, Lesson 3, students use centimeter cubes to build a rectangular

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			prism. Students then find the volume of the rectangular prism. In Mission 5, Lesson 4, Word Problem, the teacher draws a 2 cm × 2 cm × 1 cm rectangular prism on the board or projects an image of one on the board. Students then solve the following problem: "Karen says that the volume of this prism is 5 cm^3 and that she calculated it by adding the sides together. Give the correct volume of this prism, and explain Karen's error." This problem not only affords students the opportunity to model a rectangular prism composed of cubes, but also allows students to demonstrate their knowledge of finding volume through multiplication. In Mission 4, Lesson 25 Optional Homework, students draw a tape diagram and number line to solve division problems involving whole numbers and unit fractions, such as 3 ÷ ⅓ or 5 ÷ ¼. In Mission 5, Lesson 21, students complete a sorting chart to determine which of the shapes are quadrilaterals with two pairs of equal sides.
	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.	**Yes**	Materials include support for English Language Learners and other special populations. Materials are accessible for all learners, including English Language Learners, and include teacher guidance to help support English Language Learners. In addition, each Mission provides a link to materials in Spanish for the Mission Overview, Fluency, Word problems, small group lessons, assessments, Student Notes and Exit Tickets, Optional Problem

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			Sets, and Optional Homework Assignments. The lessons include audio support for students during the Independent Digital Lessons, in addition to the closed captioning feature. Visual supports appear throughout the lessons in Discovery Canyon, Math Chat, Tower of Power, and Bonus. The assessments available in Spanish allow the teacher to assess the students' understanding of the standards without language barriers. The Course Guide describes Design Features That Support All Learners, such as consistent lesson structures, concepts developing over time from concrete to abstract, opportunities to apply mathematics to real-world context, access strategies, and physical math manipulatives. Accessible design features are included for students with disabilities, such as visual clarity through use of color, color contrast, font readability, volume consistency, assistive technology including text-to-speech, screen reader and Braille Translation Software, keyboard accessibility, and instructional accommodations including translation materials, guided notes and graphic organizers, read aloud, scribe, separate location or quiet place, breaks, checklists and other self-monitoring activities, and physical math manipulatives. Multiple Means of Representation, Engagement, and Action and Expression sections are

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			provided throughout the lessons to support all learners.
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.	**Yes**	Multiple assessment opportunities are embedded into content materials that measure student mastery of standards that reflect the balance of the standards as presented in materials. Every Mission includes a Mid-Mission and an End-of-Mission Assessment that address the focus standards. The Mission-level assessments assess student understanding of content for the Mission. Level-lesson assessments include the digital Tower of Power and paper-based Exit Tickets. The Tower of Power is a scaffolded assessment that focuses on the content of the lesson and is administered at the end of each Independent Digital Lesson. The assessment adapts to the students based on their ability to answer all the questions correctly. The Exit Tickets also focus on the content of the lesson and are administered at the close of each lesson.
	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.	**Yes**	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-appropriate way. Students are given a variety of opportunities to use

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			procedural skills, fluency, and mathematical reasoning in real-world situations on the Exit Tickets and the assessments provided in each of the seven Missions. The assessment items are aligned with the components of rigor. Within the assessments, students provide explanations, use precision in mathematical statements, and utilize various models. For example, in Mission 4, End-of-Mission Assessment, item 1 assesses LSSM 5.NF.4a and addresses the conceptual understanding expectation of the standard. In the six-part item, students multiply or divide fractions and draw models to explain their thinking. Students solve problems such as ⅓ x ¼, ¾ of ⅓, and ¼ ÷ 5. In Mission 2, Mid-Mission Assessment, item 1 assesses LSSM 5.OA.A.1 and 5.OA.A.2 and addresses both the conceptual understanding and procedural understanding expectations of LSSM 5.OA.A.1 and the conceptual understanding expectation of LSSM 5.OA.A.2. Students fill in a three-column chart with missing cells. The columns include words, expression, and the value of the expression. For example, in the first row, students are given the words “Divide the difference between 1,200 and 700 by 5” and have to write the expression, (1,200 - 7000) ÷ 5, and the value of the expression, 100. In Mission 3, Mid-Mission Assessment, item 2 assesses LSSM 5.NF.2 and addresses the application expectation

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			of the standard. The item states, "Lila collected the honey from 3 of her beehives. From the first hive she collected ⅔ gallon of honey. The last two hives yielded ¼ gallon each. How many gallons of honey did Lila collect in all? Draw a diagram to support your answer."
	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.	**Yes**	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. The Mid-Mission Assessment and End-of-Mission Assessment Answer Keys provide a rubric for each assessment which checks for specific, observable, and measurable criteria. The Answer Keys provide student exemplar responses for each item, as well as the aligned standard(s). The rubrics provide actionable feedback that teachers can use to respond to student learning and misconceptions. For each item, a Progression Towards Understanding shows the "gradually increasing learnings that students develop on their way to full understanding," categorizing student understanding as Initiating Understanding, Developing Understanding, Nearing Understanding, and Full Understanding. The Course Guide notes that "if unfinished learning is evident on Mission-level assessments, teachers should move forward with additional supports and

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			address misconceptions during collaborative Concept Exploration and on Flex Days" using the foundational lessons. In addition, the Tower of Power activity provides real time support if a student makes a mistake. Students have the opportunity to correct their mistakes and continue through the assessment. The Tower Alerts Report helps teachers identify where students struggled and whether or not they were able to complete the independent practice of the lesson. If a student struggles in the activity, the student receives real-time, scaffolded support through Boosts. Tower Alerts notify teachers when students struggle multiple times and suggest foundational support. For example, in Mission 2, the End-of-Mission Assessment, items 1a-1b assess LSSM 5.NBT.A.1, 5.NBT.A.2, and 5.NBT.B.7. According to the rubric, full understanding of items 1a-1b, is achieved if "The student accurately completes both problems and provides sufficient evidence of using a place value model to support her answers." The Mission 6, End-of-Mission Assessment, item 2a measures student understanding of LSSM 5.G.A.2. According to the scoring rubric, a student who is not proficient (developing understanding) would be "unable to provide an accurate description of what the point (3, 80) represents within the context of the problem but produces work that serves as evidence that she is

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			developing understanding of interpreting coordinate values of points in context." Guidance states that the student may have reversed the coordinates and interpreted the point to mean three minutes of screen time rather than three weeks and 80 minutes.
	6d) Materials provide 2-3 **comprehensive assessments** (interims/benchmarks) that measure student learning up to the point of administration.	**No**	Materials do not provide comprehensive assessments (interims/benchmarks) that measure student learning up to the point of administration. Mid-Mission and End-of-Mission Assessments assess students on the content addressed in that particular Mission, but do not include content from other Missions. Three interim assessments are available for separate purchase through ANet to measure learning across multiple Missions but are not included in the core materials.
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.	**Yes**	The content can be reasonably completed within a regular school year, and the pacing of content allows for maximum student understanding. The materials include six Missions addressed over a 36-week period. Guidance suggests that teachers address four lessons per week and reserve a fifth Flex Day for differentiated instruction or assessment days.
	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,	**Yes**	The materials are easy to use and well-organized for students and teachers. Guidance is provided for lesson planning and instructional delivery, lesson flow, questions to help promote student thinking, and expected student outcomes.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
	questions to help prompt student thinking, and expected student outcomes.		The Course Guide provides a scope and sequence, pacing guidance, explicit instructions for implementing the materials, guidance for supporting diverse learners, and guidance for using assessments and reports. In addition, the Course Guide details instructional routines throughout the lessons, as well as strategies for multilingual learners. The consistent structure of each lesson includes a Warm-Up, Concept Exploration, and Wrap-Up. Guidance for planning for a Mission suggests that teachers familiarize themselves with the math of the Mission, work through a selection of the Independent Digital Lessons, and check the class reports to review student progress. Guidance for Core Days and Flex Days is provided so the teacher can meet all student needs. As students complete the Digital Lesson, the organization is easy to follow and understand, as each lesson follows the same structure. Students begin with two fluency activities, then engage in Guided Practice, followed by Independent Practice. Students have the option to engage in the Bonus activity for enrichment if time allows. Every Mission includes Student Notes for Digital Lessons and Exit Tickets which allow the students to easily record notes during the lesson and complete Exit Tickets at the end of the lessons. Optional Problem Sets and Homework are easily accessible on the platform, along with Teacher Lesson

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			Materials, Assessment Answer Keys, and Foundational Guidance.
	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.	**Yes**	Materials include unit and lesson study tools for teachers. Each lesson provides an explanation of the lesson, including the standards and objectives. Resources provide sufficient background knowledge to support teachers and are well-organized and easy to utilize. Tutorial videos for implementing the materials in class are available for teachers. These videos are located in the PD tab on the Zearn homepage. Each Mission contains a Curriculum Study, which is located in the PD section that is accessible from the homepage. These studies are designed to build content knowledge for teaching the grade-level Mission. The teacher watches a video that explains the fluencies, word problems, and lessons contained in the Mission and answers questions when prompted throughout these videos. An additional three-hour training course that explains the Zearn rotational model is available. This series of three videos largely focuses on daily scheduling and monitoring students to ensure their success. Additional study tools are located in the Mission Overviews. The Mission Overviews provide a detailed breakdown of the mathematics for the Mission and topic. Each Mission Overview also provides a Curriculum Map for Grades K-5, objectives for each lesson in the Mission, an overview of each topic covered in the

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			Mission, math terminology, and the focus standard for the Mission. Each Mission includes a Foundational Guidance section that provides the standards and lesson objectives for each topic in the Mission and connects a foundational content section. The foundational content shows the teacher where to find additional support from the previous grade-level lessons for a particular objective. The Classroom Supports tab provides printable weekly schedules, getting started checklists, example anchor charts, and lesson trackers.
	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. Foundational Guidance is provided for each topic. The guidance provides the objective for each lesson within the topic, as well as foundational content from previous grade levels or prior lessons. For example, Mission 2, Topic A focuses on mental strategies for multi-digit whole number multiplication. Foundational content lists the following prerequisite skills from Grade 4 needed to access grade-level content: “Multiply two-digit multiples of 10 by two-digit multiples of 10 with the area model” and “Use place value disks to represent two-digit by one-digit multiplication.” Mission 5, Topic C focuses on the area of rectangular figures with fractional side lengths. Foundational content lists the following prerequisite skills from Grades 3 and 5 needed to

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			access grade-level content: “Find the area of a rectangle through multiplication of the side lengths” and “Multiply non-unit fractions by non-unit fractions.”
	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, on-grade-level work. There are no diagnostic tests, pre-assessments, or any other materials that help teachers identify students who need prerequisite work. Although student reports are provided, they are provided after lesson and Mission completion instead of before the learning takes place. For example, the materials include a Tower of Power activity during independent practices which provide a Boost when a student makes a mistake. The Boost breaks down the problem to help students understand what they did incorrectly. If a student continues to make mistakes after multiple attempts, the teacher will receive an alert suggesting differentiated support for that student. However, the activity occurs after the lesson has been taught. Tools to identify students that need prerequisite work to access current, grade-level instruction prior to engaging in the on grade-level content are not provided.
	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. Each

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			Mission contains Foundational Guidance to identify which prerequisite skills and supporting grade-level content to utilize for scaffolding and addressing unfinished learning. The guidance recommends previous grade-level lessons or prior lessons within the same grade level to use for prerequisite support. In addition, students practice prerequisite skills and concepts in lesson-aligned fluency activities such as Sprints, Multiply Mania, Pair Compare, Totally Times, Fraction Action, Mix and Match, and Blasts. For example, in Mission 4, Topic B: Fractions as Division addresses LSSM 5.NF.B.3. The materials suggest assigning Grade 4, Mission 3, Lesson 19 in addition to Grade 3, Mission 3, Lessons 14-19 as additional support. In Mission 3, Topic C: Equivalent Fractions addresses LSSM 5.NF.A.1 and 5.NF.A.2. The materials suggest assigning Grade 4, Mission 5, Lessons 22-23 for Lessons 8-10 and Grade 4, Mission 5, Lessons 29 and 32 for Lessons 11-12.
	7g) Materials provide **clear guidance and support** for teachers about the structures that allow students to appropriately address unfinished learning using prerequisite work.	**Yes**	Materials provide clear guidance and support for teachers about the structures that allow students to appropriately address unfinished learning using prerequisite work. The Course Guide suggests that teachers use Flex days to address individual needs. The materials provide just-in-time supports embedded in the Digital Lessons and recommend foundational lessons aligned to grade-level content within each lesson. The Tower of

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			Power activity assesses student learning during Independent Practice and automatically launches a Boost with support and scaffolding from prior grade levels or prior lessons. If students continue to struggle during the Tower of Power, the teacher receives a Tower Alert Report that helps the teacher identify the part of the lesson in which a student struggled. This report helps teachers identify which students need additional support and recommends foundational lessons for each student.

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[4]	1. Focus on Major Work	**Yes**	Materials devote the majority of time to the major work for 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

[4] Must score a "Yes" for all Non-negotiable Criteria to receive a Tier I or Tier II rating.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			or more clusters in a domain and 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 fluency 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 detailed in the content standards. Materials explicitly attend to the specialized language of mathematics. However, materials do not include teacher-directed materials that explain the role of the practice standards in the classroom and in students' mathematical development.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
II: Additional Alignment Criteria and Indicators of Superior Quality[5]	5. Alignment Criteria for Standards for Mathematical Content	**Yes**	Materials provide all students extensive work with grade-level problems. Materials relate grade-level concepts explicitly to prior knowledge from earlier grades and courses. The materials are designed so that prior knowledge is extended to accommodate new knowledge, building to core instruction, on grade-level work. Lessons are appropriately structured and scaffolded to support student mastery. The materials prompt students to produce answers in a variety of ways. Materials include support for English Learners and other special populations.
	6. Quality of Assessments	**Yes**	Multiple assessment opportunities are embedded into content materials that measure student mastery of standards that reflect the balance of the standards as presented in materials. Assessment items include a combination of tasks that require students to demonstrate conceptual understanding, demonstrate procedural skill and fluency, and apply mathematical reasoning and modeling in real-world context. Assessment items require students to produce answers and solutions, arguments, explanations, and models in a grade-appropriate way. Scoring guidelines and rubrics align to standards, incorporate criteria that are specific, observable, and measurable, and provide sufficient guidance for interpreting student performance,

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			misconceptions, and targeted support to engage in core instruction. However, materials do not provide comprehensive assessments (interims/benchmarks) that measure student learning up to the point of administration.
	7. Additional Indicators of Quality	**Yes**	The content can be reasonably completed within a regular school year and the pacing of content allows for maximum student understanding. The materials are easy to use and well-organized for students and teachers. Guidance is provided for lesson planning and instructional delivery, lesson flow, questions to help promote student thinking, and expected student outcomes. Materials include unit and lesson study tools for teachers. Materials identify prerequisite skills and concepts for the major work of the grade. However, materials do not provide guidance to help teachers identify students who need prerequisite work to engage successfully in core instruction, on-grade-level work. Materials provide targeted, aligned, prerequisite work for the major work of the grade, directly connected to specific lessons and units in the curriculum. Materials provide clear guidance and support for teachers about the structures that allow students to appropriately address unfinished learning using prerequisite work.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
FINAL DECISION FOR THIS MATERIAL: **Tier I, 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 2020-2021 Teacher Leader Advisors are selected from across the state and represent the following parishes and school systems: Acadia, Ascension, Beauregard, Bossier, Caddo, Calcasieu, City of Monroe, Claiborne, Diocese of Alexandria, East Baton Rouge, Evangeline, Firstline Schools, Iberia, Iberville, Jefferson, Jefferson Davis, Jefferson Parish Charter, KIPP, Lafayette, Lafourche, Lincoln, Livingston, Louisiana Tech University, Louisiana Virtual Charter Academy, Lusher Charter School, Natchitoches, Orleans, Ouachita, Plaquemines, Pointe Coupee, Rapides, Richland, Special School District, St. Charles, St. Landry, St. Tammany, Tangipahoa, Tensas, Vermillion, Vernon, West Feliciana, and Zachary Community. This review represents the work of current classroom teachers with experience in grades K-8.

Appendix I.

Publisher Response

The publisher had no response.

Appendix II.

Public Comments

There were no public comments submitted.

Appendix III.

Tech Ready Endorsement

LOUISIANA DEPARTMENT OF EDUCATION

Academic Content

Tech Readiness Endorsement

Zearn

- Zearn Math, Grades 1-5

Section I: Non-Negotiable Criteria

Materials must meet all Non-Negotiable Criteria in Section I for the review to continue to Section II.

Criteria	Indicator of Quality	Determination
Required Browser	The curriculum platform **does/does not** need a specific browser (Internet Explorer, Safari, etc.) to launch.	Meets Required Indicator
Operating System	Operates on Google, Microsoft, and Apple OS	Meets Required Indicator
SSO (Single Sign On)	The product utilizes SSO through Google, Clever, Microsoft, or another SSO method; therefore, no external account should be created, and no personal information should be collected or shared.	Meets Required Indicator
Cyber Security	Has either SOC II or GDPR certification	Meets Required Indicator

Section II: Additional Criteria of Tech Readiness

Functionality	
Criteria	**Score/Evidence**
LMS Integration	Minor Concerns (2) Zearn offers integration and accessibility through flexible rostering and single sign-on capabilities, supporting Clever, ClassLink, and Google. Districts can choose rostering via Clever, ClassLink, or CSV upload, with management options through SIS or directly within the Zearn account. Simplified login is available directly from LMS platforms and Clever.

	Deep LTI integrations are possible with Canvas and Schoology. Can only be shared in Google Classroom with a direct link.
Scale	Works Well (3) Zearn offers robust features for personalized instruction and subgroup management, enabling teachers to assign content by student, group, or whole class across various academic levels. Real-time reports provide insights on content beneficial to specific students or subgroups, with the added capability of creating custom subgroups based on class-level and student-level analytics. Zearn's Tower Alerts report identifies specific math concepts requiring review, allowing teachers to filter students by skill gaps and access relevant resources directly from the report. The platform also provides comprehensive analytics and reporting, offering real-time insights into student progress, pace, challenges, and growth areas. These reports are available at the class, subgroup, or individual student level, and can be accessed and downloaded as PDFs for both teachers and administrators.
Ease of Use	Works Well (3) Zearn's design emphasizes clear organization and intuitive navigation for both students and teachers. The student interface features a streamlined layout, highlighting the next activity with a prominent "Start" button and limiting clickable areas to minimize distractions. Teachers benefit from easy search and filter options by standard, lesson previews, and access to supporting materials. Content is developed to be cognitively and developmentally appropriate, with lessons tailored by grade level and tested with students to ensure age-appropriate design. This includes "Story Time" for scaffolded word problem support in younger grades (G1–2) and "Z-Squad" for higher-order thinking in upper grades (G3–5). On-screen keypads and audio support are available for younger students or those using tablets. The platform also prioritizes visual and interactive accessibility through visual cues, clear iconography, and feedback messages. Color is not used as the sole conveyor of meaning, and contrast and font size adhere to accessibility standards. Readable fonts (mostly ≥16pt), clear labeling of menus and buttons, and a logical layout are consistently employed. Features supporting students with visual impairments, such as screen reader and closed-caption compatibility, are integrated. Finally, Zearn provides integrated support tools, including a 24/7 Help Center with searchable tutorials for all users.
Teacher and Staff Support	
Criteria	**Score/Evidence**
Data	Works Well (3)

	Zearn provides comprehensive, real-time data access for teachers and leaders to monitor student progress, pace, struggles, and growth at individual, group, or class levels. This data is exportable, printable, and shareable. Reports offer custom grouping and filtering options, allowing for analysis based on performance or specific learning needs, such as identifying students who need support with a particular math concept using Tower Alerts. The platform features various report types, including Class Reports to track weekly lesson completion and areas of struggle, Student Reports for in-depth, individualized insights, and School Reports for administrators to monitor progress across classrooms and grades. District Dashboards offer district-wide summaries and custom reporting tools in collaboration with Zearn. All reports incorporate clear data visualizations and can be downloaded as CSV files for further analysis or integration with other systems.
Training Resources	Works Well (3) The platform offers support through the Help Center, which features a searchable database of tutorials, videos, articles, and guides. The Webinar Library provides various options for hands-on training. Additionally, a dedicated School Account Resource Center offers tutorial videos, on-demand professional development, and support for both educators and families.
Professional Learning	Works Well (3) Zearn provides support for educators and leaders, including an Implementation Playbook with on-demand, role-specific guides and year-round support from the Zearn Partner Success Team. Users have 24/7 access to the Zearn Help Center, which offers searchable guides, videos, tutorials, and articles. The School Account Resource Center provides tutorial videos, on-demand training, and resources for educators and families. Zearn offers a Webinar Library and various hands-on training options. Professional learning opportunities include tailored educator and leader trainings, available virtually or in-person, covering topics like data use, supporting diverse learners, and promoting independent learning, with sessions customizable to meet district-specific needs. Curriculum Study PD includes over 40 on-demand, unit-specific video sessions for K–5 to support deep planning and instructional preparation.
Accessibility	
Criteria	**Score/Evidence**
Mobile Functionality	Works Well (3) Accessible on a range of devices, including the following desktops, laptops, or mobile devices: • Desktop computers (Windows or Mac OS) • Laptop computers (Windows or Mac OS) • Chromebooks

	• iPads (Zearn supports iOS devices updated to one of the two most recently released versions) • Android
Offline Functionality	Serious Concerns (1) Does not allow for any offline functionality.
Additional Required Download	Works Well (3) Zearn works through any browser. No additional downloads are required.
Administration	
Criteria	Score/Evidence
Onboarding	Works Well (3) Teachers are automatically notified when their Zearn account is created and receive onboarding instructions for logging in and getting started. Every School Account purchase includes access to "Getting Started with Zearn Math," a one-hour orientation covering the Zearn platform, instructional materials, and reports for teachers and administrators.
Communication	Works Well (3) Institutions benefit from centralized administrative control, allowing them to manage all communication settings from a single point. This system also facilitates teacher-student communication as needed, with message records maintained for accountability.
Tech Support	Works Well (3) Zearn offers multi-channel support, including email, live chat, and a searchable Help Center with tutorials, guides, and FAQs. A clear escalation protocol ensures prompt resolution of unresolved issues, minimizing disruptions to teaching and learning. Feedback systems are also in place to identify and address recurring problems at their root cause. Additionally, school leaders receive dedicated training and resources for effective platform management and institutional-level troubleshooting.
Reports	Works Well (3) Zearn offers administrative reports to monitor usage across classrooms, schools, and districts. The School Goals Report allows leaders to track progress toward completion goals at multiple levels and acknowledge achievements. The Completion Tracking Report helps ensure students are on pace to complete their grade-level digital lessons. For customized analysis of student progress, pace, and Mission completion, classroom-

	level data can be exported using Student Exports. Tutorial videos on how to utilize these reports are accessible in the Zearn Help Center.

Final Determination

Section I: Non-Negotiable Criteria of Tech Readiness: All Criteria Met
The Zearn Platform satisfies Section I: Non-Negotiable Criteria of Tech Readiness by meeting all four of the required indicators of quality:

- Required Browser: The curriculum does not need a specific browser to launch. It works on Safari, Chrome, Edge, and Firefox.
- Operating System Capability: The platform operates on Google, Microsoft, and Apple operating systems. It works on Apple, Google, Microsoft, and Firefox.
- Single Sign-On (SSO): The platform utilizes SSO and does not require the creation of external accounts.
- Cybersecurity: The platform is SOC 2 compliant

Section II: Additional Criteria of Tech Readiness score:

38 out of 39 within the 13 criteria fields required for Tech Readiness Endorsement.

The Zearn platform satisfies Section II: Additional Criteria of Tech Readiness by scoring **36** out of **39** points within the 13 criteria fields. The Zearn Platform received a score of 3, or "Works Well", in 11 of the 13 criteria.

The platform received a score of 2, or "Minor Concerns", for the following criteria:

- LMS Integration

The reviewers noted the following concerns:

- The platform does not offer any type of offline access.

The Zearn Platform was awarded the Tech Readiness Endorsement because it met all of the requirements in Section I and received a score above 80% in Section II.

Tech Readiness Endorsement: Tech Readiness Endorsement Granted