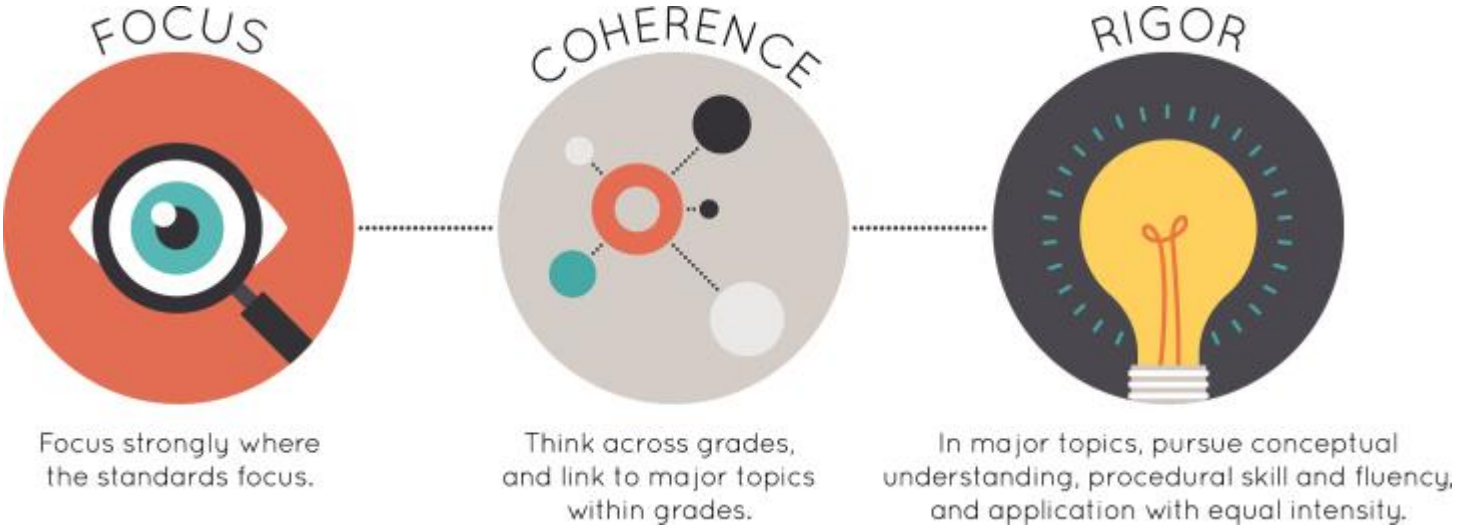
DEPARTMENT of EDUCATION
Louisiana Believes

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

FULL CURRICULUM
Instructional Materials

Strong mathematics instruction contains the following elements:



Title: **Investigations in Number, Data, and Space, 3rd Edition**

Grade/Course: **K-5**

Publisher: **Pearson Education**

Copyright: **2017**

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

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

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

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

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

Click below for complete grade-level reviews:

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

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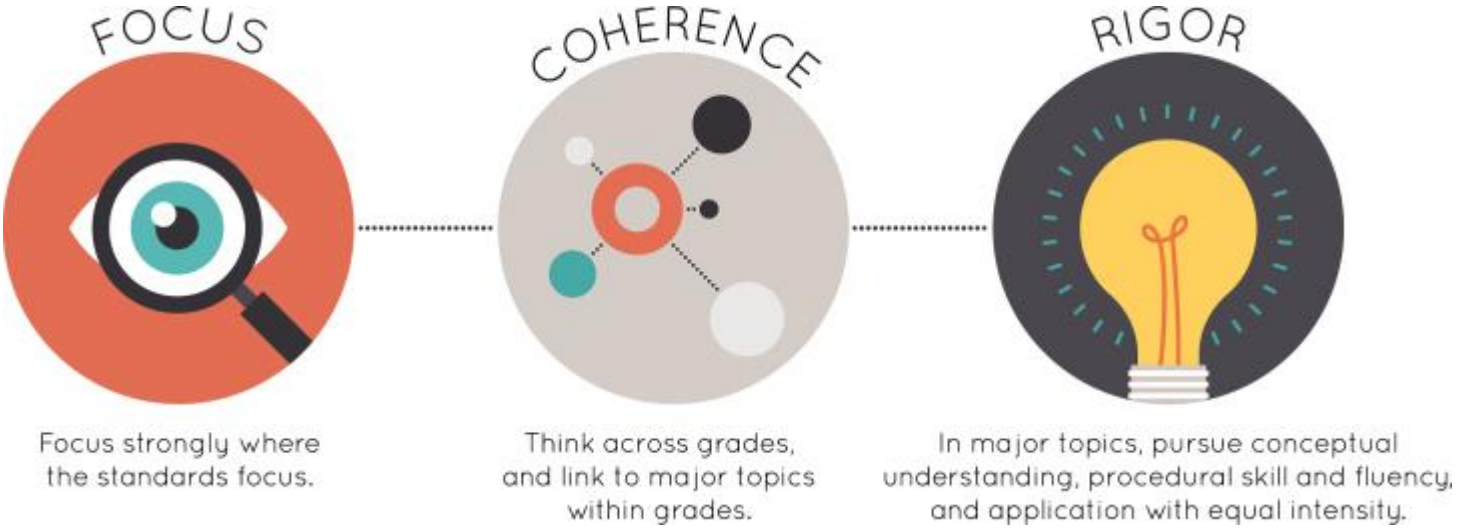

Title: **Investigations in Number, Data, and Space, 3rd Edition**

Grade/Course: **K**

Publisher: **Pearson Education**

Copyright: **2017**

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

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

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

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

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

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
SECTION I: NON-NEGOTIABLE CRITERIA: Submissions must meet all of the non-negotiable criteria in order for the review to continue.			
Non-Negotiable **1. FOCUS ON MAJOR WORK[1]:** Students and teachers using the materials as designed devote the large majority[2] of time to the major work of the grade/course. ☐ Yes ☒ No	**REQUIRED** **1a)** Materials should devote the large majority of class time to the major work of each grade/course. Each grade/course must meet the criterion; do not average across two or more grades.	**No**	The materials do not devote a large majority of class time to the major content of the grade. According to the Investigations Content Guide for Kindergarten released by the publisher, there are 8 units with a total of 140 lessons. 103 out of 140 lessons, or 74%, are aligned with major content standards for Kindergarten according to this document. All lessons are tagged to several standards, including major content standards. However, some lessons that are tagged with major content standards only touch on those standards with the main focus of the lesson on a supporting or additional standard. For example, in Unit 1 Session 2.3 Button Match-Up, there are several major standards listed. The main focus of the lesson, however, is on matching buttons by common attributes, aligned with K.G.B.4 Analyze and compare 2- and 3-dimensional shapes. In another example, Unit 8 Session 3.1 references the following major work standards: K.CC.A.1, K.CC.A.2, K.CC.A.3, K.CC.B.4a, K.CC.B.4b, K.CC.B.5, K.CC.B.6, K.OA.A.1, K.OA.A.2, and K.NBT.A.1. It also references the supporting content Standards K.MD.A.1 and K.MD.A.2. The clear lesson focus is on students comparing the weight of objects, which addresses the supporting content Standards K.MD.A.1 and K.MD.A.2. The other standards can be practiced within the lessons if students choose to play one of the games that address those major work standards during the math workshop.
	REQUIRED **1b)** In any one grade/course, instructional materials should spend minimal time on content outside of the appropriate grade/course. Previous grade/course content should be used only for scaffolding instruction. In assessment materials there are no chapter tests, unit tests, or other such assessment components that make	**No**	The materials spend time on content beyond Kindergarten standards. For example, in Unit 5 Session 1.8 students compare cubes and rectangular prisms. In Kindergarten, the Geometry standard domain states that students should identify and describe the following shapes: squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres. A rectangular prism is not part of the kindergarten standard; therefore, the

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

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	students or teachers responsible for any topics before the grade/course in which they are introduced in the Standards.		materials spend time on content outside of kindergarten. Also, in Unit 7 Sessions 2.1-2.3, students are required to gather data, organize the data, interpret the data, and sort data. The Assessment Checklist referenced, Resource Master A25, includes assessing students for making a plan to collect data and revising the plan as needed and collecting the data. The lesson references Standard K.MD.B.3. However, K.MD.B.3 does not require a kindergarten student to gather, organize, and interpret data. K.MD.B.3 states that students should classify objects into given categories based on their attributes; count the number of objects in each category, and sort the categories by count. Also, in Unit 7 Session 3.8, students are asked to solve a problem that assesses their ability to represent and use data based on attendance in the class. The Assessment Checklist, Resource Master A26, includes assessing students for identifying and representing data needed to solve the problem and solving the problem accurately with numbers beyond Kindergarten expectations. When students are solving problems in kindergarten, they are only required to solve addition and subtraction word problems, and add and subtract within 10 using objects or drawings (K.OA.A.2). The lessons referenced in Unit 7 are more closely aligned to Standard 1.MD.C.4, which states students should organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.
Non-Negotiable **2. CONSISTENT, COHERENT CONTENT** Each course's instructional materials are coherent and consistent with the content in the Standards.	**REQUIRED** **2a)** Materials connect supporting content to major content in meaningful ways so that focus and coherence are enhanced throughout the year.	**Yes**	For Kindergarten, the materials connect supporting content to major content in meaningful ways. For example, in Unit 1 Session 3.4 students are taught how to sort blocks by their attributes. This part of the lesson connects to the supporting content Standard K.MD.B.3, which states that students should classify objects into given categories based on their attributes; count the numbers of objects in each category and sort the categories by count.

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☒ Yes ☐ No			After sorting the blocks, students are then expected to count how many blocks are in each category, record the numeral amount, and compare to see which category has more or less, making a meaningful connection to major Standards K.CC.A.3, K.CC.B.4a, K.CC.B.4b, K.CC.B.5, and K.CC.C.6. Also, in Unit 5 Session 1.2 students focus on analyzing and describing the features of Geoblocks. Students are expected to analyze the blocks and use informal language to describe the blocks. This aligns with supporting content Standard K.G.B.4, which states that students should analyze and compare two and three dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, and parts. After analyzing and describing the Geoblocks, students then count the blocks, make a set with an equal amount, and represent the amount with a numeral. This meaningfully connects to major Standards K.CC.A.3, K.CC.B.4a, K.CC.B.4b, K.CC.B.5, and K.CC.C.6.
	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**	The materials use problems and activities that do serve to connect different domains in kindergarten and the connections are natural and important. For example, Unit 2 meaningfully connects the Measurement Domain with the Counting and Cardinality Domain. In Unit 2 Session 2.1, students measure objects to determine if they are longer or shorter than a tower of 10 cubes. This is aligned with Standard K.MD.A.2. Before measuring, students must build the tower of 10 cubes themselves, making a meaningful connection to Standards K.CC.B.4a, K.CC.B4b, and K.CC.B.5. Unit 6 makes meaningful connections between the Counting and Cardinality Domain and the Operations and Algebraic Thinking Domain. In Unit 6 Session 2.2, students add two pairs of numbers within 10 together (K.OA.A.2), then compare them to see which total is greater (K.CC.B.6).
Non-Negotiable **3. RIGOR AND BALANCE:** Each grade's instructional materials	**REQUIRED** **3a)** ***Attention to Conceptual Understanding:*** Materials develop conceptual understanding of key mathematical	**Yes**	The materials develop conceptual understanding of key mathematical concepts, especially where called for in the Standards. For example, in Unit 1 Session

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reflect the balances in the Standards and help students meet the Standards' rigorous expectations, by helping students develop conceptual understanding, procedural skill and fluency, and application. ☒ Yes ☐ No	concepts, especially where called for explicitly in specific content standards or cluster headings by amply featuring high-quality conceptual problems and discussion questions.		2.1, students develop an understanding of the relationship between numbers and quantities (K.CC.B.4). In this lesson, students count groups of items to put in the "Counting Jar," and then they make a matching group to put outside the jar. In Unit 1 Session 3.2, students use the "Counting Jar" activity to not only count groups of numbers, but also to start recording how many they have counted. Another lesson that helps students develop conceptual understanding of K.CC.B.4 is Unit 2 Session 1.7. In this activity, students choose a number card. They then have to count that many pennies and place them in a ten frame, making sure to fill in a row of five before placing any counter on the second row. In Unit 6 Session 3.2, students are introduced to activities that allow them to gain conceptual understanding of the parts of 6. Students use two-color counters to find all the ways to make 6. There are high-quality questions provided in the teacher's edition that can guide students' understanding, such as, "[Emma] says she got 4 red and 2 yellow. Does that equal six? How do you know?" and "Do you think it's possible to get all red or all yellow?" This connects to Standard K.OA.A.3, which states that students should decompose numbers less than or equal to 10 into pairs in more than one way, by using objects or drawings, and record each decomposition by a drawing or equation. In Unit 8 Session 2.8, students develop conceptual understanding of composing numbers between 11 and 19 (K.NBT.A.1) in an activity called Build It, Then Race to the Top. Students turn over a ten card and a ten-frame card and determine the amount shown. Students then show the same amount on their own ten frames using pennies and connect the teen number to a 10 + ___ number sentence. Students record the teen number on a recording sheet. Teachers are prompted to ask questions such as, "How many dots are there? How do you know?" and "Where do you think I would write 13?"
	REQUIRED	**Yes**	The materials are designed to that students attain

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	3b) ***Attention to Procedural Skill and Fluency:*** The materials are designed so that students attain the fluencies and procedural skills required by the Standards. Materials give attention throughout the year to individual standards that set an expectation of procedural skill and fluency. In grades K-6, materials provide repeated practice toward attainment of fluency standards. In higher grades, sufficient practice with algebraic operations is provided in order for students to have the foundation for later work in algebra.		the procedural skills and fluencies required by the Standards in the Classroom Routines, Practice, Homework, and Games. Within each unit, each lesson has a class routine that focuses on a fluency standard to continuously provide a spiral review of the key skills and concepts for procedural skill and fluency. For example, in Unit 2 Session 1.1, the classroom routines allow for practice with procedural skill and fluency Standards K.CC.A.1 AND K.CC.B.5. Students practice rote counting up to 31, connecting number words, numerals, and quantities to their counting. This allows students to gain fluency with counting by ones, as required by K.CC.A.1. The activities also allow students to gain fluency with counting to answer "How many?" because the routine calls for discussion around answering this type of question. Also, in Unit 7 Session 3.7, students are given the opportunity during the classroom routine to practice counting forward from a given number on a number line. This allows students to gain fluency with the procedural skill and fluency standard, K.CC.A.2. K.CC.A.2 states that students should count forward from a given number within the known sequence. It should be noted that there is one fluency standard to which the materials do not give enough explicit attention. Standard K.OA.A.5 requires students to fluently add and subtract within 5. The publisher lists this standard as being taught in the following lessons: Unit 4: 2.3, 2.4, 2.5, 2.6, 2.7, 3.5, Unit 6: 2.1, 2.2, 2.5, 2.6, 2.7, 2.8, 3.1, and Unit 8: 1.2, 1.3, 1.4, 1.5, 1.6, 1.7. In the Unit 4 lessons listed, there are opportunities for students to practice adding and subtracting within 10, however, no activities that intentionally focus on building fluency with adding and subtracting within 5. In Unit 6 Session 2.7 and 2.8, students are developing a conceptual understanding of adding and subtracting within 5 by modeling story problems and explaining to other students how they solved the problem. Then in Unit 6 Session 3.1, students try to find all the combinations of 5 and explain how they solved the

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			problem. When students play Build and Remove in Unit 8 Session 1.1, they add and subtract within 10. Unit 8 Session 1.2 gives students exposure to 2 subtraction facts within 5, 4-1 and 5-2, both through application to story problems. Unit 8 Session 1.3 requires students to make up a story problem about 3-2, then solve a story problem for 6-3. This type of limited practice will not help students build fluency. Unit 8 Session 1.4 is the first lesson where students truly engage in an activity to build fluency of adding and subtracting within 5. They play Race to the Sun where they use Fluency within Five cards, which show addition and subtraction facts within 5. Unit 8 Session 1.5- 1.7 also have activities that help students build fluency with adding and subtracting within 5 however this is not enough opportunity to build fluency with the skill.
	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**	The materials are designed so that teachers and students spend sufficient time working with engaging applications of the mathematics, without losing focus on the major work of the grade. In kindergarten, there is one standard that calls for the component of application. Standard K.OA.A.2 states that students should solve addition and subtraction word problems , and add and subtract within 10 by using objects or drawings to represent the problem. Word problems are introduced in Unit 4 Session 2.2. Following this lesson in the materials, students are given multiple opportunities to solve addition and subtraction word problems. For example, the Classroom Routine in Unit 4 Sessions 3.1, 3.3, and 3.5 and in Unit 5 Sessions 1.2, 1.5, and 1.9 give students more practice in solving addition and subtraction word problems. In Unit 6 Session 2.3, students begin learning how to represent and solve story problems using connecting cubes. In Unit 7, Sessions 3.2 and 3.5 provide students to solve both an addition and a subtraction story problem during the Classroom Routine.
	REQUIRED **3d) *Balance:*** The three aspects of rigor are not always	**Yes**	The materials provide a balance of the three aspects of rigor. For example, in Unit 4, students begin

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	treated together and are not always treated separately.		applying their understanding of addition and subtraction within 10 to solve word problems (K.OA.A.2). The materials provide students opportunities to practice solving word problems in some lessons, and in other lessons, students build procedural skill in adding and subtracting with 10. Moving fluidly between these components of rigor enhances the coherence of the Standards. Throughout the materials, students practice procedural skills, such as counting to tell how many (K.CC.B.5), and then, in the same lesson, develop conceptual understanding of the numbers by telling which set has more (K.CC.C.6).
Non-Negotiable **4. FOCUS AND COHERENCE VIA PRACTICE STANDARDS:** Materials promote focus and coherence by connecting practice standards with content that is emphasized in the Standards. ☒ Yes ☐ No	**REQUIRED** **4a)** Materials address the practice standards in such a way as to enrich the content standards of the grade/course; practices strengthen the focus on the content standards instead of detracting from them, in both teacher and student materials.	**Yes**	The materials address the practice standards in such a way as to enrich the content standards of the grade; practices strengthen the focus on the content standards instead of detracting from them. Throughout the entire curriculum, math practices are addressed within most lessons, and there are teacher notes within the lessons that reference the practice standards that are addressed and how they are addressed. For example, in Unit 2 Session 1.5, the teacher is prompted to count a collection of cubes incorrectly. Students watch closely and listen carefully so they will be able to describe what they noticed and suggest strategies to count more accurately. In doing so, students are engaging in MP 3 by critiquing the reasoning of the teacher. In Unit 3 Session 1.2, students engage in MP 6, attend to precision, as they count a set of objects, make an equivalent set, and represent the amount. Unit 6 Session 2.3 focuses on teaching students how to model story problems. Within the lesson, MP 5, use appropriate tools strategically, is referenced. Students are required to solve a story problem using cubes rather than real objects to help solve the story problem. The teacher note states, "By having cubes represent pencils in a story context, students are using cubes a tool in a new way. They have abstracted the concept of number to realize that it doesn't matter if they have pencils or cubes (or some other objects)--any collection of 4 and any

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			collection of 3 can be used to act out the story. They can combine the collections of cubes to determine the total number of pencils found." In Unit 6 Session 3.3, the Math Practice Note again lists MP 5, Use appropriate tools strategically. In this lesson, students are encouraged to use cubes or their fingers to find ways to make six; however, they are not directly told to use any one specific tool and are able to choose a tool that works best for them.
SECTION II: ADDITIONAL ALIGNMENT CRITERIA AND INDICATORS OF QUALITY			
Additional Criterion **5. ALIGNMENT CRITERIA FOR STANDARDS FOR MATHEMATICAL CONTENT:** Materials foster focus and coherence by linking topics (across domains and clusters) and across grades/courses by staying consistent with the progressions in the Standards. ☐ Yes ☐ No	**REQUIRED** **5a)** Materials provide all students extensive work with course-level problems. Review of material from previous grades and courses is clearly identified as such to the teacher, and teachers and students can see what their specific responsibility is for the current year.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	REQUIRED **5b)** Materials relate course-level concepts explicitly to prior knowledge from earlier grades and courses. The materials are designed so that prior knowledge becomes reorganized and extended to accommodate the new knowledge.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	5c) Materials base content progressions on the progressions in the Standards.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	5d) Materials include learning objectives that are visibly shaped by CCSSM cluster headings and/or standards.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	5e) Materials preserve the focus, coherence, and rigor of the Standards even when targeting specific objectives.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.

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Additional Criterion **6. ALIGNMENT CRITERIA FOR STANDARDS FOR MATHEMATICAL PRACTICE:** Aligned materials make meaningful and purposeful connections that enhance the focus and coherence of the Standards rather than detract from the focus and include additional content/skills to teach which are not included in the Standards. ☐ Yes ☐ No	**REQUIRED** **6a)** Materials attend to the full meaning of each practice standard. Over the course of any given year of instruction, each mathematical practice standard is meaningfully present in the form of assignments, activities, or problems that stimulate students to develop the habits of mind described in the practice standard. Alignments to practice standards are accurate.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	REQUIRED **6b)** Materials provide sufficient opportunities for students to construct viable arguments and critique the arguments of others concerning key grade-level mathematics that is detailed in the content standards (cf. MP.3). Materials engage students in problem solving as a form of argument, attending thoroughly to places in the Standards that explicitly set expectations for multi-step problems.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	6c) There are teacher-directed materials that explain the role of the practice standards in the classroom and in students' mathematical development.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	6d) Materials explicitly attend to the specialized language of mathematics.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
Additional Criterion **7. INDICATORS OF QUALITY:** Quality materials should exhibit the indicators outlined here in order to give teachers and students the tools they need to meet the expectations of the Standards. ☐ Yes ☐ No	**REQUIRED** **7a)** There is variety in what students produce. For example, students are asked to produce answers and solutions, but also, in a grade-appropriate way, arguments and explanations, diagrams, mathematical models, etc.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	REQUIRED **7b)** There are separate teacher materials that support and reward teacher study including, but not limited to: discussion of the mathematics of the units and the mathematical point of each lesson as it relates to the organizing concepts of the unit, discussion on student	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.

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	ways of thinking and anticipating a variety of students responses, guidance on lesson flow, guidance on questions that prompt students thinking, and discussion of desired mathematical behaviors being elicited among students.		
	7c) Support for English Language Learners and other special populations is thoughtful and helps those students meet the same standards as all other students. The language in which problems are posed is carefully considered.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	7d) The underlying design of the materials distinguishes between problems and exercises. In essence the difference is that in solving problems, students learn new mathematics, whereas in working exercises, students apply what they have already learned to build mastery. Each problem or exercise has a purpose.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	7e) Lessons are appropriately structured and scaffolded to support student mastery.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	7f) Materials support the uses of technology as called for in the Standards.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.

FINAL EVALUATION

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

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

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

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

Section	Criteria	Yes/No	Final Justification/Comments
I: Non-Negotiables	1. Focus on Major Work	**No**	While the publisher's alignment document shows 74% of lessons focused on major content, many of the lessons do not focus on the major content standards listed. There are connections to major standards, but not a focus on them. In addition, the materials address some content beyond Kindergarten standards.
	2. Consistent, Coherent Content	**Yes**	The materials make meaningful connections between supporting standards and major standards, as well as between the different domains of

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			Kindergarten.
	3. Rigor and Balance	**Yes**	The materials are designed in a way to help students develop conceptual understanding, procedural skills, and applications of Kindergarten standards.
	4. Focus and Coherence via Practice Standards	**Yes**	The materials engage students in the Mathematical Practice standards in a way that enhances the major work of Kindergarten.
II: Additional Alignment Criteria and Indicators of Quality	5. Alignment Criteria for Standards for Mathematical Content	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	6. Alignment Criteria for Standards for Mathematical Practice	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	7. Indicators of Quality	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
FINAL DECISION FOR THIS MATERIAL: **Tier III, Not representing quality**			

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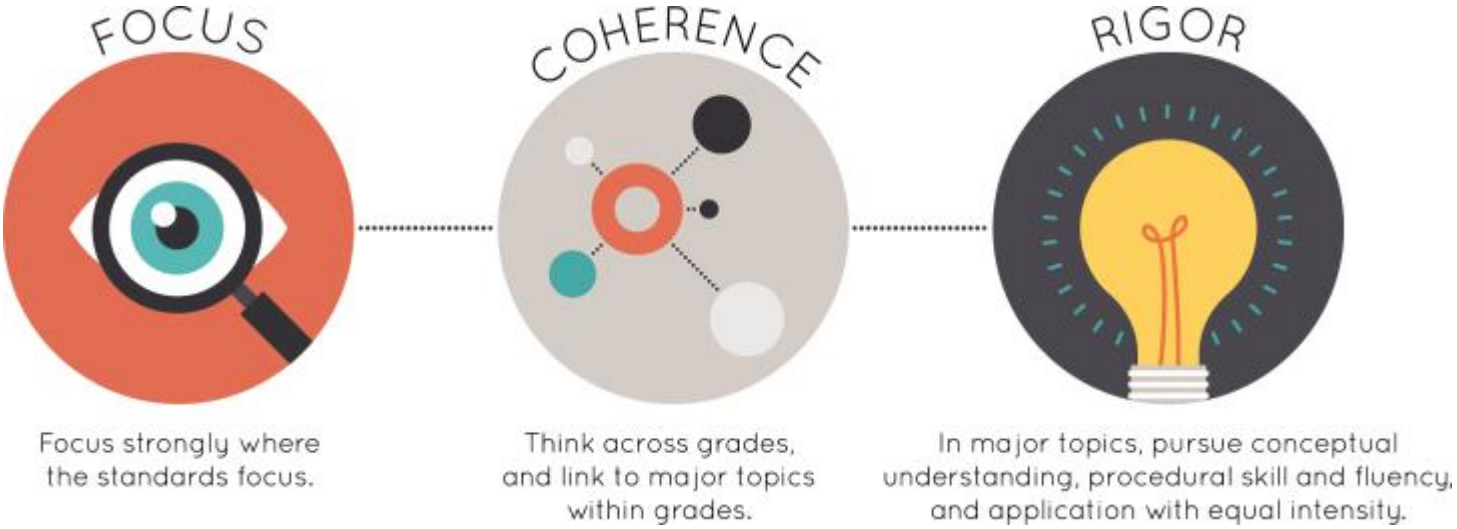

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Grade/Course: **1**

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CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
SECTION I: NON-NEGOTIABLE CRITERIA: Submissions must meet all of the non-negotiable criteria in order for the review to continue.			
Non-Negotiable **1. FOCUS ON MAJOR WORK[3]:** Students and teachers using the materials as designed devote the large majority[4] of time to the major work of the grade/course. ☐ Yes ☒ No	**REQUIRED** **1a)** Materials should devote the large majority of class time to the major work of each grade/course. Each grade/course must meet the criterion; do not average across two or more grades.	**No**	The materials do not devote a large majority of class time to the major content of the grade. According to the Investigations Content Guide for Grade 1 released by the publisher, there are 8 units with a total of 140 lessons. 101 out of 140 lessons, or 72%, are aligned with major content standards for Grade 1 according to this document. At this grade level, the percentage of time spent on major content should be closer to 85%. 12 out 140 lessons, or 9%, focus on supporting content. 27 out of 140 lessons, or 19%, focus on additional content.
	REQUIRED **1b)** In any one grade/course, instructional materials should spend minimal time on content outside of the appropriate grade/course. Previous grade/course content should be used only for scaffolding instruction. In assessment materials there are no chapter tests, unit tests, or other such assessment components that make students or teachers responsible for any topics before the grade/course in which they are introduced in the Standards.	**Yes**	The instructional materials spend minimal time on content outside the grade level. There are no above grade-level assessment questions, and the assessments include material that is appropriate for Grade 1.For example, on Unit 2 Session 2.4 Assessment Sourcebook page A16, Quiz 2 assesses students on being able to distinguish between defining and non-defining attributes of shapes (1.G.A.1).Problem 1 asks students to select the triangle out of 4 choices. One of the choices is a three-sided figure that is not closed, and another incorrect choice is a three-sided figure that is closed with one slightly-curved side.Another example is in Unit 7, Session 1.8 Assessment Sourcebook pages A50-51, Quiz 1 assesses students on being able to recognize how many tens are in a number that is a multiple of 10 (1.NBT.B.2c) and subtracting multiples of 10 from a multiple of 10 (1.NBT.C.6).The quiz has items that involve almost all multiples of 10 between 10 and 90, and for items aligned to 1.NBT.C.6, the quiz contains pictures of base-10 blocks so that students can use them when subtracting. It should be noted that, while not formally assessed, in Unit 2 Sessions 2.3-2.5, students are explicitly taught the characteristics of quadrilaterals, which is a Grade 2 expectation.Standard 2.G.A.1 states that

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			students should recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces, and identify triangles, quadrilaterals, pentagons, hexagons, and cubes.
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**	The materials connect some supporting content to major content in meaningful ways. There are two supporting standards in Grade 1: 1.MD.C.4 and 1.MD.D.5. Unit 6 is focused on supporting Standard 1.MD.C.4, Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another. Within the lessons in Unit 6, as students collect and organize data, they practice adding and subtracting within 20 using the data collected to answer how many more and how many fewer questions, connecting to major Standards 1.OA.A.1 and 1.OA.C.6. While the LA Correlation document provided by the publisher lists several lessons where Standard 1.MD.D.5, Determine the value of a collection of coins up to 50 cents, is taught, this standard is not taught in the materials; therefore, there are no meaningful connections between this supporting standard and major standards. Some connections to the standard listed by the publisher involve using pennies as counters to create numbers within 20. For example, in Unit 1 Session 1.3, students use pennies to create numbers up to 20 on ten frames. The other connection to the standard listed by the publisher is using pennies as the unit being added or subtracted in word problems. For example, in Unit 1 Session 3.5,students have one word problem to solve. The unit being subtracted is pennies. The examples given do not involve finding the value of any coins, as required by the standard.

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**	The materials include problems and activities that serve to connect different domains in Grade 1, where the connections are natural and important. For example, Unit 2 Sessions 2.1, 2.2, and 2.4 connect 1.G.A and 1.MD.C as students observe and describe defining attributes of 2-D shapes, use those attributes to build, compare and sort 2-D shapes, and compose and decompose 2-D shapes. Students sort shapes into categories and then answer questions about the number of shapes in each category and how many more or less in the categories (1.MD.C.4). These lessons meaningfully connect the Geometry Domain to the Measurement and Data Domain. In Unit 4 Sessions 1.5-1.8, students measure objects and compare the length of the objects (1.MD.A.2). Within these lessons, students also solve story problems that continue to allow them to compare the lengths of the different objects (1.OA.A.1). This meaningfully connects the Measurement and Data Domain to the Operations and Algebraic Thinking Domain. Also, in Unit 4 Session 2.1, students are introduced to the concept of one-half and how dividing or partitioning a circle into two equal parts makes halves (1.G.A.3). Also within this lesson, students are introduced to the concept of half-hour when telling time (1.MD.B.3). Making connections between partitioning circles into halves and telling time to the half-hour meaningfully connects the Geometry Domain and the Measurement and Data Domain.
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	**REQUIRED** **3a)** ***Attention to Conceptual Understanding:*** Materials develop conceptual understanding of key mathematical concepts, especially where called for explicitly in specific content standards or cluster headings by amply featuring high-quality conceptual problems and discussion questions.	**Yes**	The materials develop conceptual understanding of key mathematical concepts, especially where called for explicitly in specific content standards or cluster headings. In the instructional materials, visual representations, verbal explanations, and written equations are used to develop conceptual understanding. For example, in Unit 1, Session 3.4 students are engaged in solving subtraction story problems (1.OA.A.1) through modeling the use of the number lines, student drawings and written equations. In Unit 3 Session 3.2, students visualize subtraction story problems. Students then represent

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
application. ☒ Yes ☐ No			the story problems using the math tool of his/her choice and solve and represent the problem with an equation. Activities are designed in such a way for students to gain conceptual understanding with the following conceptual understanding standards: 1.OA.A.1, 1.OA.B.3, 1.OA.B.4, 1.OA.C.5, 1.OA.C.6, and 1.OA.D.7. Throughout the entire unit, students are given multiple opportunities to gain conceptual understanding in the content standards that work as a whole to build in key mathematical concepts and ideas in the Operations and Algebraic Thinking Domain for Grade 1. Another example is in Unit 7, Sessions 1.3-1.5. In these lessons, students develop conceptual understanding of counting by tens (1.NBT.B.2c) by using the concrete model of human fingers to count groups of ten. Also in this session, students build towers of ten cubes and count those by tens. This builds to adding and subtracting multiples of 10 (1.NBT.C.6) in Sessions 1.7-1.8 and adding and subtracting within 100 using place value understanding in Sessions 3.3-.8. Throughout these lessons, students use ten sticks and ten frames to help develop the conceptual understanding of place value (1.NBT.B.2).
	REQUIRED **3b)** ***Attention to Procedural Skill and Fluency:*** The materials are designed so that students attain the fluencies and procedural skills required by the Standards. Materials give attention throughout the year to individual standards that set an expectation of procedural skill and fluency. In grades K-6, materials provide repeated practice toward attainment of fluency standards. In higher grades, sufficient practice with algebraic operations is provided in order for students to have the foundation for later work in algebra.	**Yes**	The materials give attention throughout the year to individual standards that set an expectation of procedural skill and fluency. Within each unit, each lesson has a class routine that focuses on a procedural skill and fluency standard to continuously provide a spiral review of these key skills and concepts. Each lesson also includes Daily Practice and Games that focus on reviewing procedural skill and fluency standards. Standard 1.OA.C.6 requires students to fluently add and subtract within 10. Opportunities to develop fluency with this standard are given throughout the year, beginning in Unit 1. For example, in Unit 1 Session 2.1, students use Resource Master-G5 to complete the activity "One or Two More" to practice addition within 10. In Session 3.1, students find one or two less than a given number within 10. Unit 3 includes several opportunities for students to play games

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			involving rolling two dice and adding to find the sum or subtracting to find the difference. In Unit 5 Session 1.4, students use Resource Masters G45-G46 to complete the activity "Tens Go Fish." Students practice pairing number cards that make 10.
	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**	The materials are designed so that teachers and students spend sufficient time working with engaging applications. Practice with application of the major work in addition and subtraction is found throughout five units of instruction. Students have many opportunities to work with the cluster 1.OA.A, represent and solve problems involving addition and subtraction that involve take from with result unknown, add to with result unknown, put together/take apart with both addends unknown, comparison problems with the difference unknown, put together/take apart with one addend unknown, add to and take from with unknown change, and comparison problems with bigger or change unknown. These opportunities can be seen in the whole-group activities, discussions, and independent math workshops. For example, in Unit 1, students solve addition and subtraction word problems within a whole group, with partners and in their student activity book. They also have discussions about the strategies they used to solve the problems. Another example is in Unit 3, students apply decomposing strategies for a given number by solving word problems with both addends unknown. Students also begin to label a word problem with an equation.
	REQUIRED **3d) *Balance:*** The three aspects of rigor are not always treated together and are not always treated separately.	**Yes**	The three components of rigor are balanced within the curriculum, sometimes treated together and sometimes treated separately. For example, In Unit 7 Session 1.3-1.4, students build conceptual understanding of counting by 10s up to 120 (1.NBT.A.1) using the concept that each person has ten fingers. They apply this concept at the end of the lessons to answer story problems, such as, “There are 7 people. How many fingers are there?” They also practice counting by 10s using various numbers

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			of filled ten frames and determining how many dots. Then in Session 1.5, students continue building procedural skill and fluency by practicing counting by 10s during the Classroom Routine Start With/Get To: Counting Forward and Back by 10s.
Non-Negotiable **4. FOCUS AND COHERENCE VIA PRACTICE STANDARDS:** Materials promote focus and coherence by connecting practice standards with content that is emphasized in the Standards. ☒ Yes ☐ No	**REQUIRED** **4a)** Materials address the practice standards in such a way as to enrich the content standards of the grade/course; practices strengthen the focus on the content standards instead of detracting from them, in both teacher and student materials.	**Yes**	The materials address the practice standards in such a way as to enrich the content standards of the grade; practices strengthen the focus on the content standards instead of detracting from them. Throughout the entire curriculum, math practices are addressed within most lessons, and there are teacher notes within the lessons that reference the practice standards that are addressed and how they are addressed. For example, Unit 2 Session 2.4 requires students to solve addition word problems. The materials reference Math Practice 4, Model with mathematics. Students are taught how to represent their math thinking by modeling how two parts are joined to make a whole number. Students are then taught how to represent their math thinking and a word problem using counters, cubes, fingers, pictures, or equations. In Unit 2, Session 2.4, students engage in MP 3, Construct viable arguments and critique the reasoning of others, as they engage in discussion around which of the given shapes are triangles, which are not, and why they think so. In Unit 4 Session 1.5, students again engage in MP 3. Students compare two ways a student measured the length of a fish and try to determine why she got two different measurements. The teacher note states, “Trying to figure out where another person’s procedure went awry is an aspect of critiquing the reasoning of others.” In Unit 7 Session 3.1, Math Practice Note lists MP5, Use appropriate tools strategically. In this lesson, students play a game that introduces adding tens. The students are only using cubes in tower form and have the ability to use Ten Frame Cards if they choose. The Math Practice Note states that students can represent the numbers with either cubes in towers of 10 or Ten Frame Cards. In this session,

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			students are able to choose between two different tools, which at this grade level is appropriate.
SECTION II: ADDITIONAL ALIGNMENT CRITERIA AND INDICATORS OF QUALITY			
Additional Criterion **5. ALIGNMENT CRITERIA FOR STANDARDS FOR MATHEMATICAL CONTENT:** Materials foster focus and coherence by linking topics (across domains and clusters) and across grades/courses by staying consistent with the progressions in the Standards. ☐ Yes ☐ No	**REQUIRED** **5a)** Materials provide all students extensive work with course-level problems. Review of material from previous grades and courses is clearly identified as such to the teacher, and teachers and students can see what their specific responsibility is for the current year.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	REQUIRED **5b)** Materials relate course-level concepts explicitly to prior knowledge from earlier grades and courses. The materials are designed so that prior knowledge becomes reorganized and extended to accommodate the new knowledge.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	5c) Materials base content progressions on the progressions in the Standards.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	5d) Materials include learning objectives that are visibly shaped by CCSSM cluster headings and/or standards.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	5e) Materials preserve the focus, coherence, and rigor of the Standards even when targeting specific objectives.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
Additional Criterion **6. ALIGNMENT CRITERIA FOR STANDARDS FOR MATHEMATICAL PRACTICE:** Aligned materials make meaningful and purposeful connections that enhance the focus and coherence of the Standards rather than detract from the focus and include additional content/skills to teach which are not included in the	**REQUIRED** **6a)** Materials attend to the full meaning of each practice standard. Over the course of any given year of instruction, each mathematical practice standard is meaningfully present in the form of assignments, activities, or problems that stimulate students to develop the habits of mind described in the practice standard. Alignments to practice standards are accurate.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	REQUIRED **6b)** Materials provide sufficient opportunities for students to construct viable arguments and critique the	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
Standards. ☐ Yes ☐ No	arguments of others concerning key grade-level mathematics that is detailed in the content standards (cf. MP.3). Materials engage students in problem solving as a form of argument, attending thoroughly to places in the Standards that explicitly set expectations for multi-step problems.		
	6c) There are teacher-directed materials that explain the role of the practice standards in the classroom and in students' mathematical development.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	6d) Materials explicitly attend to the specialized language of mathematics.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
Additional Criterion **7. INDICATORS OF QUALITY:** Quality materials should exhibit the indicators outlined here in order to give teachers and students the tools they need to meet the expectations of the Standards. ☐ Yes ☐ No	**REQUIRED** **7a)** There is variety in what students produce. For example, students are asked to produce answers and solutions, but also, in a grade-appropriate way, arguments and explanations, diagrams, mathematical models, etc.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	REQUIRED **7b)** There are separate teacher materials that support and reward teacher study including, but not limited to: discussion of the mathematics of the units and the mathematical point of each lesson as it relates to the organizing concepts of the unit, discussion on student ways of thinking and anticipating a variety of students responses, guidance on lesson flow, guidance on questions that prompt students thinking, and discussion of desired mathematical behaviors being elicited among students.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	7c) Support for English Language Learners and other special populations is thoughtful and helps those students meet the same standards as all other students. The language in which problems are posed is carefully considered.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	7d) The underlying design of the materials distinguishes	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.

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	between problems and exercises. In essence the difference is that in solving problems, students learn new mathematics, whereas in working exercises, students apply what they have already learned to build mastery. Each problem or exercise has a purpose.		
	7e) Lessons are appropriately structured and scaffolded to support student mastery.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	7f) Materials support the uses of technology as called for in the Standards.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.

FINAL EVALUATION

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

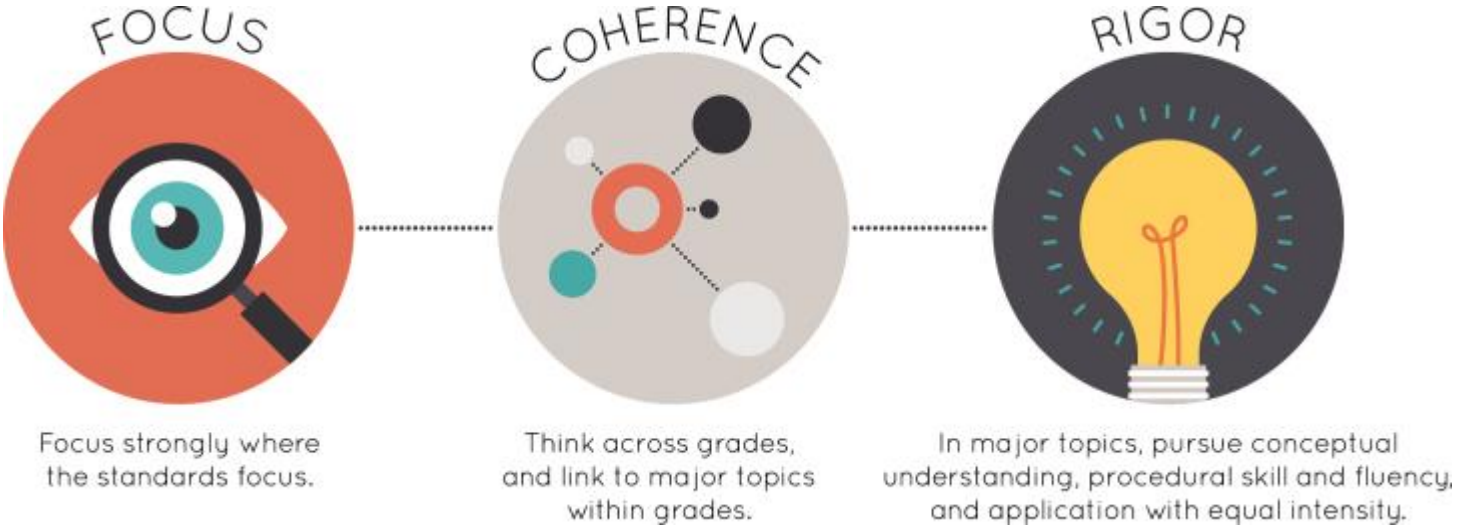
Tier 2 ratings receive a "Yes" in Column 1 for all non-negotiable criteria (Criteria 1 – 4), but at least one "No" in Column 1 for the remaining criteria.

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

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

Section	Criteria	Yes/No	Final Justification/Comments
I: Non-Negotiables	1. Focus on Major Work	**No**	101 out of 140 lessons, or 72%, are devoted to major content of Grade 1. At this grade level, the percentage of time spent on major content should be closer to 85%.
	2. Consistent, Coherent Content	**Yes**	The materials make meaningful connections between supporting content and major content, as well as between different domains in Grade 1.
	3. Rigor and Balance	**Yes**	The materials are designed in a way to help students develop conceptual understanding, procedural skills, and applications of Grade 1 standards.
	4. Focus and Coherence via Practice Standards	**Yes**	The materials engage students in the Mathematical Practice standards in a way that enhances the major work of Grade 1.
II: Additional Alignment Criteria and Indicators of Quality	5. Alignment Criteria for Standards for Mathematical Content	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	6. Alignment Criteria for Standards for Mathematical Practice	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	7. Indicators of Quality	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
FINAL DECISION FOR THIS MATERIAL:	**Tier III, Not representing quality**		

Strong mathematics instruction contains the following elements:



Title: **Investigations in Number, Data, and Space, 3rd Edition** Grade/Course: **2**

Publisher: **Pearson Education** Copyright: **2017**

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

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

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

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

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

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
SECTION I: NON-NEGOTIABLE CRITERIA: Submissions must meet all of the non-negotiable criteria in order for the review to continue.			
Non-Negotiable **1. FOCUS ON MAJOR WORK[5]:** Students and teachers using the materials as designed devote the large majority[6] of time to the major work of the grade/course. ☐ Yes ☒ No	**REQUIRED** **1a)** Materials should devote the large majority of class time to the major work of each grade/course. Each grade/course must meet the criterion; do not average across two or more grades.	**No**	The materials do not devote a large majority of class time to the major content of the grade. According to the Investigations Content Guide for Grade 2 released by the publisher, there are 8 units with a total of 143 lessons. 98 out of 143 lessons, or 69%, are aligned with major content standards for Grade 2 according to this document. At this grade level, the percentage of time spent on major content should be closer to 85%. 26 out 143 lessons, or 18%, focus on supporting content. 19 out of 143 lessons, or 13%, focus on additional content.
	REQUIRED **1b)** In any one grade/course, instructional materials should spend minimal time on content outside of the appropriate grade/course. Previous grade/course content should be used only for scaffolding instruction. In assessment materials there are no chapter tests, unit tests, or other such assessment components that make students or teachers responsible for any topics before the grade/course in which they are introduced in the Standards.	**No**	The materials spend minimal time on content outside Grade 2. Content from previous grade levels is used for review and scaffolding purposes. However, some content beyond Grade 2 Standards is assessed. For example, Unit 2 Assessment Problem 3 asks which rectangle shows 6 rows and 3 columns, which goes beyond the explicit expectation of Standard 2.OA.C.4, which calls for students to use addition to find the total number of object arranged in rectangular arrays with up to 5 rows and up to 5 columns. The Unit 7 assessment Problem 7 also goes beyond Standard 2.OA.C.4. This word problem shows 1 row of 4 and labels this as 1 floor. It states a building has 4 floors and asks how many rooms are in the building. The End-of-Year assessment Problem 24 asks which rectangle shows 7 rows and 4 columns.
Non-Negotiable **2. CONSISTENT, COHERENT CONTENT** Each course's instructional materials are coherent and consistent with the content in the Standards.	**REQUIRED** **2a)** Materials connect supporting content to major content in meaningful ways so that focus and coherence are enhanced throughout the year.	**Yes**	The materials connect supporting content to major content in meaningful ways. For example, in Unit 3 Session 1.3, students try to find all the possible ways to represent a 2-digit number using 10s and 1s with dimes and pennies. This aligns with supporting Standard 2.MD.C.8, which states that students should solve word problems involving dollar bills, quarters, dimes, nickels, and pennies using $ and cent symbols appropriately, and connects to major Standard 2.NBT.A.1, focused on place value

[5] For more on the major work of the grade, see Focus by Grade Level.
[6] 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
☒ Yes ☐ No			understanding. Also, in Unit 6 Session 1.3, students focus on generating measurement data by measuring lengths of jumps using cubes, making a line plot to represent the data (2.MD.D.9), and solving subtraction word problems (2.OA.A.1) about the measurement data, meaningfully.
	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**	The materials include problems and activities that serve to connect different domains and clusters within a domain in Grade 2, where the connections are natural and important. For example, Unit 3 Sessions 3.3 and 3.4 connect 2.OA.A, 2.OA.B, 2.NBT.A, 2.NBT.B, and 2.MD.B as students solve problems using their understanding of place value to add and subtract within 20 and relate addition and subtraction to length. In Unit 8 Sessions 2.1 through 2.9 connect 2.NBT.A and 2.NBT.B as students use their understandings of place value and properties of operations to add and subtract within 1000.
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 amply featuring high-quality conceptual problems and discussion questions.	**Yes**	The materials develop conceptual understanding of key mathematical concepts, especially where called for explicitly in specific content standards or cluster headings. In the instructional materials, visual representations, verbal explanations, and written equations are used to develop conceptual understanding. For example, in Unit 7 Sessions 1.1 and 1.2, students determine if a number is even or odd by pairing objects and writing an equation to express an even number as a sum of two equal addends (2.OA.C.3). Also, in Unit 8 Sessions 2.1- 2.4, students are taught how to represent a three-digit number using hundreds, tens, and ones. Students are taught how to read and write three-digit numbers using base-ten numerals and numeral names (2.NBT.A.3). Within that same lesson, students add using concrete models and drawings based on place value and explain their thinking (2.NBT.B.7). Students also explain why the addition strategies work using place value (2.NBT.B.9). This lesson allows students to gain deep conceptual understanding of the standards in the numbers and operation in base ten standard domain.
	REQUIRED	**Yes**	The materials give attention throughout the year to

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
	3b) ***Attention to Procedural Skill and Fluency:*** The materials are designed so that students attain the fluencies and procedural skills required by the Standards. Materials give attention throughout the year to individual standards that set an expectation of procedural skill and fluency. In grades K-6, materials provide repeated practice toward attainment of fluency standards. In higher grades, sufficient practice with algebraic operations is provided in order for students to have the foundation for later work in algebra.		individual standards that set an expectation of procedural skill and fluency. Within each unit, each lesson has a class routine that focuses on a procedural skill and fluency standard to continuously provide a spiral review of these key skills and concepts. Each lesson also includes Daily Practice and Games that focus on reviewing procedural skill and fluency standards. Standard 2.OA.B.2 calls for students to fluently add and subtract within 20 using mental strategies and know from memory all sums of one-digit numbers. Students are given multiple opportunities to practice adding and subtracting within 20 throughout the year. For example, in Unit 1, Sessions 2.1-2.8, students work on properties of operations, addition of two or more numbers and subtraction facts. In Unit 2 Session 1.1, the Classroom Routine "Fact Fluency" is introduced: students review fact cards in their personal fact envelopes "Facts I Know" and then focus on the cards in their "Facts I Am Still Working On" envelope. This routine is revisited multiple times throughout the rest of the units, for example in Unit 2 Session 3.1, Unit 3 Session 1.1, Unit 4 Session 1.4, and Unit 6 Session 1.6. Standard 2.NBT.B.5 calls for students to fluently add and subtract within 100. Unit 5 Sessions 1.1-1.6 give students practice in adding and subtracting within 100. Session 3.1-3.8 give students more practice with adding and subtracting within 100.
	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	**Yes**	The materials are designed so that teachers and students spend sufficient time working with engaging applications. Practice with application of the Grade 2 major work in addition and subtraction is found throughout six units of instruction. Students have many opportunities to work with Standard 2.OA.A.1, use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing with unknowns in all positions, e.g. by using drawings and

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
	those places in the content Standards where expectations for multi-step and real-world problems are explicit.		equations with a symbol for the unknown number to represent the problem. For example, in Unit 1, students are introduced to word problems with multiple addends and use cubes to model. Within Sessions 4.1-4.5, students focus on using strategies for solving addition and subtraction word problems through modeling, drawing pictures and class discussions. In Unit 3, students use sticker strips, hundred charts, number lines, and strategies based on place value and coins (dimes and pennies) to model word problems with 2-digit numbers. In Unit 6, students apply knowledge of addition and subtraction to solve word problems involving length measurements.
	REQUIRED **3d)** ***Balance:*** The three aspects of rigor are not always treated together and are not always treated separately.	**Yes**	The three components of rigor are balanced within the curriculum, sometimes treated together and sometimes treated separately. For example, in Unit 6, students build conceptual understanding of length measurement by measuring jumps with nonstandard measurement tools, such as craft sticks and paper clips, and discussing why the measurements are different and why they think so. They apply the concept by comparing jumps and solving word problems involving length. In Unit 8, students move back and forth through conceptual understanding, procedural skill, and applications. Throughout the unit, students model adding and subtracting within 1000 (2.NBT.B.7) with place value drawings. Students also apply this skill to word problems as they practice adding and subtracting within 1000.
Non-Negotiable **4. FOCUS AND COHERENCE VIA PRACTICE STANDARDS:** Materials promote focus and coherence by connecting practice standards with content that is emphasized in the Standards. ☒ Yes ☐ No	**REQUIRED** **4a)** Materials address the practice standards in such a way as to enrich the content standards of the grade/course; practices strengthen the focus on the content standards instead of detracting from them, in both teacher and student materials.	**Yes**	The materials address the practice standards in such a way as to enrich the content standards of the grade; practices strengthen the focus on the content standards instead of detracting from them. Throughout the entire curriculum, math practices are addressed within most lessons, and there are teacher notes within the lessons that reference the practice standards that are addressed and how they are addressed. For example, Unit 1 Session 2.3 requires students to solve problems with multiple addends. Students engage in MP 2 as they reason

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			abstractly about why the addends can be arranged in any order. The teacher note states, "In order to reason about why the addends can be arranged in any order, students must keep the abstract symbols connected to images of the quantities they represent, for example, towers of cubes. The numbers are kept small in this example precisely so that students make connections to cube representations." In the Unit 5 Session 2.1 Classroom Routine, teacher questions help students to engage in MP 7, Look for and make use of structure. The teacher displays 54 stickers in strips of 10s and singles and guides discussion, such as, "I added a strip of 10 more stickers. How many stickers do we have now?" and "I took away 3 strips of 10 stickers. How many stickers do we have now?" The teacher note states, "By connecting the image of strips and singles with symbols, students make sense of the structure of place value. In this Classroom Routine, students consider why adding or subtracting a number of groups of 10 results in the tens digit increasing or decreasing by that number."
SECTION II: ADDITIONAL ALIGNMENT CRITERIA AND INDICATORS OF QUALITY			
Additional Criterion **5. ALIGNMENT CRITERIA FOR STANDARDS FOR MATHEMATICAL CONTENT:** Materials foster focus and coherence by linking topics (across domains and clusters) and across grades/courses by staying consistent with the progressions in the Standards. ☐ Yes ☐ No	**REQUIRED** **5a)** Materials provide all students extensive work with course-level problems. Review of material from previous grades and courses is clearly identified as such to the teacher, and teachers and students can see what their specific responsibility is for the current year.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	REQUIRED **5b)** Materials relate course-level concepts explicitly to prior knowledge from earlier grades and courses. The materials are designed so that prior knowledge becomes reorganized and extended to accommodate the new knowledge.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	5c) Materials base content progressions on the progressions in the Standards.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.

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

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

FINAL EVALUATION

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

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

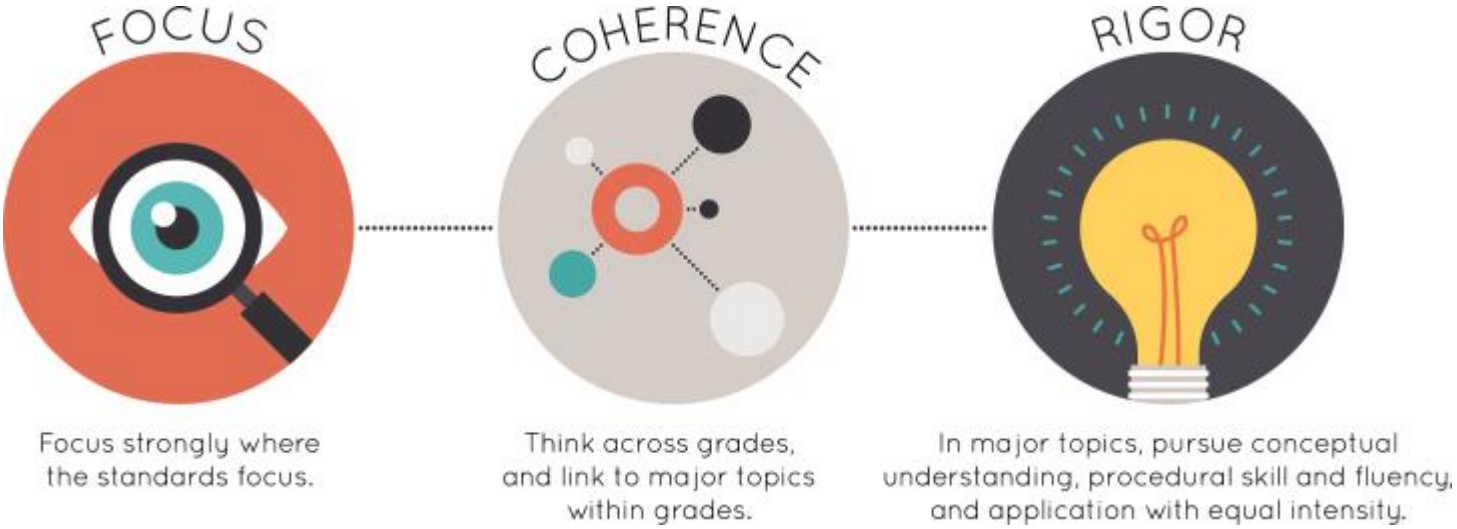
Tier 3 ratings receive a "No" in Column 1 for at least one of the non-negotiable criteria.

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

Section	Criteria	Yes/No	Final Justification/Comments
I: Non-Negotiables	1. Focus on Major Work	**No**	98 out of 143 lessons, or 69%, are devoted to major content of Grade 2. At this grade level, the percentage of time spent on major content should be closer to 85%. In addition, some content beyond

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			Grade 2 Standards is assessed.
	2. Consistent, Coherent Content	**Yes**	The materials make meaningful connections between supporting standards and major standards, as well as between the different domains of Grade 2.
	3. Rigor and Balance	**Yes**	The materials are designed in a way to help students develop conceptual understanding, procedural skills, and applications with Grade 2 Standards.
	4. Focus and Coherence via Practice Standards	**Yes**	The materials engage students in the Mathematical Practice standards in a way that enhances the major work of Grade 2.
II: Additional Alignment Criteria and Indicators of Quality	5. Alignment Criteria for Standards for Mathematical Content	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	6. Alignment Criteria for Standards for Mathematical Practice	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	7. Indicators of Quality	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
FINAL DECISION FOR THIS MATERIAL: **Tier III, Not representing quality**			

Strong mathematics instruction contains the following elements:



Title: **Investigations in Number, Data, and Space, 3rd Edition**

Grade/Course: **3**

Publisher: **Pearson Education**

Copyright: **2017**

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

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

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

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

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

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
SECTION I: NON-NEGOTIABLE CRITERIA: Submissions must meet all of the non-negotiable criteria in order for the review to continue.			
Non-Negotiable **1. FOCUS ON MAJOR WORK[7]:** Students and teachers using the materials as designed devote the large majority[8] of time to the major work of the grade/course. ☐ Yes ☒ No	**REQUIRED** **1a)** Materials should devote the large majority of class time to the major work of each grade/course. Each grade/course must meet the criterion; do not average across two or more grades.	**No**	A majority of time is not devoted to the major work of Grade 3. According to the Investigations Content Guide for Grade 3 released by the publisher, 97 out of 144 lessons, or 67%, are devoted to the major content standards. 15 out of 144 lessons, or 10%, are devoted to supporting content standards. 32 out of 144 lessons, or 22%, are devoted to additional content standards.
	REQUIRED **1b)** In any one grade/course, instructional materials should spend minimal time on content outside of the appropriate grade/course. Previous grade/course content should be used only for scaffolding instruction. In assessment materials there are no chapter tests, unit tests, or other such assessment components that make students or teachers responsible for any topics before the grade/course in which they are introduced in the Standards.	**No**	The materials spend minimal time on content outside the grade level. However, there is some content assessed that is beyond Grade 3 standards. For example, on the Unit 4 assessment, Problems 7 and 10 assess students' ability to find the area of rectilinear figures by decomposing them into two non-overlapping rectangles, finding the area of each, and then adding them together. This aligns with Grade 4 Standard 4.MD.D.8. In addition, 3.OA.C.7 limits multiplication and division to problems within 100. On Unit 8 Quiz 1, Problem 2 assess students' ability to multiply beyond 100 with the expressions 23 x 6, 21 x 5, and32 x 4. On Unit 8 Quiz 2, Problem 1 also assesses students' ability to multiply beyond 100 with the expressions 19 x 6 and 16 x 8. Another example where the materials assess content beyond Grade 3 standards concerns the use of decimals. On the Solving Addition and Subtraction Problems assessment within Unit 7, Resource Masters pages A77-A78, all of the problems involve adding and subtracting with money, including decimals. Grade 3 students do not have an understanding of decimal place value, as decimals are introduced in Grade 4.
Non-Negotiable **2. CONSISTENT, COHERENT CONTENT** Each course's instructional	**REQUIRED** **2a)** Materials connect supporting content to major content in meaningful ways so that focus and coherence are enhanced throughout the year.	**Yes**	The materials connectsupporting content to major content in meaningful ways. For example, Unit 2 Session 1.5 meaningfully connects supporting Standard 3.MD.B.3 to major Standard 3.OA.D.8. In the lesson, students create a bar graph to represent a given set of data (3.MD.B.3) and then answer

[7] For more on the major work of the grade, see Focus by Grade Level.
[8] 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
materials are coherent and consistent with the content in the Standards. ☒ Yes ☐ No			questions about the data (3.OA.D.8). In Unit 6 Session 1.1, students partition rectangles representing brownies into equal areas and express each part as a unit fraction of the whole. This makes a meaningful connection between supporting Standard 3.G.A.2 and major Standard 3.NF.A.1.In Unit 6 Session 1.6, students determine how fourths are shown on a ruler. Then they measure hand spans and plot the data on a line plot. This effectively connects supporting Standard 3.MD.B.4 with major Standard 3.NF.A.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 serve to connect two or more clusters in a domain and two or more domains within the grade. Unit 1 Session 3.2 connects the Measurement Domain and the Operations and Algebraic Thinking Domain. In this lesson, students fill a rectangle with square units to find the area (3.MD.C.5) and connect it to what they have learned about arrays and multiplication by recognizing the arrangement of rows and columns (3.OA.A.1). Unit 1 Session 4.2 connects Clusters 3.OA.A (represent and solve problems involving multiplication and division), 3.OA.B (understand properties of multiplication and the relationship between multiplication and division), and 3.OA.C (multiply and divide within 100). In this lesson, students solve 6 multiplication and division story problems, and they discuss what is the same and different about the problems. The discussion helps students to make connections between the inverse operations of multiplication and division. Unit 7 Sessions 2.1-3.2 connect the Numbers in Base Ten Domain and the Operations and Algebraic Thinking Domain. In these lessons, students practice adding and subtracting within 1000 using various strategies (3.NBT.A.2) and apply addition and subtraction to solve word problems (3.OA.D.8). For example, in Session 3.1, students solve addition and subtraction word problems involving distance traveled.
Non-Negotiable **3. RIGOR AND BALANCE:**	**REQUIRED** **3a)** ***Attention to Conceptual Understanding:*** Materials	**Yes**	The materials develop conceptual understanding of key mathematical concepts, especially where called

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	develop conceptual understanding of key mathematical concepts, especially where called for explicitly in specific content standards or cluster headings by amply featuring high-quality conceptual problems and discussion questions.		for explicitly in specific content standards or cluster headings. For example, in Unit 1, students are building conceptual understanding of multiplication as equal groups (3.OA.A.1). In Session 1.2, students illustrate equal group situations and write sentences describing the number of groups and the number in each group. They connect repeated addition to multiplication notation and then write multiplication equations to match their illustrations. Unit 6 focuses on building foundations for fraction sense. Session 1.1 introduces fractions with the concept of sharing brownies equally. Students physically cut paper into equal shares to make halves, fourths, and eighths and discuss the meaning of the numbers in the fraction notations. In the next lesson, students create personal fraction strips by cutting and folding halves, thirds, fourths, sixths, and eighths. They use the fraction strips to order unit fractions from smallest to largest. Then they try to come up with a rule about how fractions can be ordered and why that rule works. Throughout this unit, students reason about the size of fractions, ways to decompose fractions, and the relationship between a fraction and a whole. They model fractions not only with area models, but also with number lines.
	REQUIRED **3b) *Attention to Procedural Skill and Fluency:*** The materials are designed so that students attain the fluencies and procedural skills required by the Standards. Materials give attention throughout the year to individual standards that set an expectation of procedural skill and fluency. In grades K-6, materials provide repeated practice toward attainment of fluency standards. In higher grades, sufficient practice with algebraic operations is provided in order for students to have the foundation for later work in algebra.	**Yes**	Materials are designed so that students attain the fluencies and procedural skills required by the standards. For example, Standard 3.OA.C.7 calls for students to gain fluency with multiplication and division within 100. Understanding multiplication begins in Unit 1. The entire unit focuses on multiplication and division. Within these lessons, understanding is built, but there are also opportunities to practice the basic facts for fluency. For example, in Session 2.3, the Daily Practice session includes solving 6 basic multiplication facts. In Session 3.5, students play Factor Pairs where they work on facts they do not yet know. In Session 3.6, students make multiplication flash cards and discuss how they can use facts they know to learn facts they

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			do not know. There are multiple opportunities for students to practice with these flashcards in subsequent lessons. Throughout the following units, students are given more opportunities to practice multiplication and division within 100 in order to build fluency. Unit 5 also focuses on multiplication and division facts. Standard 3.NBT.A.2 calls for students to gain fluency with addition and subtraction within 1000. In Unit 2 Session 1.2, students practice adding within 1000 during the Daily Review. There are 6 problem sets of 3 related addition problems each in this lesson. In the next session, the Daily Practice includes practice with finding missing addends to 200. The Daily Practice in Unit 2 Session 1.6 gives students practice subtracting 10s and 100s within 1000. These sessions lead up to Unit 3, which focuses on addition and subtraction within 1000. Unit 7 also focuses on adding and subtracting within 1000, giving students multiple opportunities to build fluency with this skill. Standard 3.MD.A.1a requires students to develop procedural skill with telling time to nearest minute. While there are no whole lessons dedicated to this standard, there are several Daily Practice sessions which focus on telling time. For example, Unit 3 Sessions 4.1-4.5 include Daily Practice called "What Time Is It?" where students tell the time shown on a clock.
	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 teachers and students spend sufficient time working with engaging applications. The problems do attend thoroughly to those places in the content standards where expectations for multi-step and real-world problems are explicit. All 8 units include lessons involving word problems with Unit 8 focusing on multi-step word problems. The Unit 1 Session 2.4 Daily Practice includes 4 addition story problems (3.OA.D.8). Unit 3 Session 1.2 includes 6 addition word problems and discussion around various strategies to solve them. Unit 6 Session 1.1 Daily Practice includes four multi-step word problems (3.OA.D.8). The Daily Practice in next session

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			includes 3 word problems for students to practice multiplication with equal groups (3.OA.A.3). Unit 7 Session 1.3 focuses on solving multi-step word problems (3.OA.D.8), with opportunities for discussion and independent practice.
	REQUIRED **3d) *Balance:*** The three aspects of rigor are not always treated together and are not always treated separately.	**Yes**	The three components of rigor are balanced within the curriculum, sometimes treated together and sometimes treated separately. The Review and Practice session at the beginning of each lesson often focuses on spiraling in previous skills related to any of the 3 components of rigor. For example, the Review and Practice session at the beginning of Unit 2 Session 1.1 focuses on skip counting by 4s, which will help students build fluency with multiplying and dividing with 100 (3.OA.C.7). The Review and Practice session at the beginning of Unit 4 Session 2.6 reviews conceptual understanding of place value with rounding numbers and writing them in expanded form in various ways. Sometimes the Review and Practice sessions combine components of rigor, such as in Unit 6 Session 1.6. Students have to tell the time on a clock (3.MD.A.1a) and also apply this to a word problem involving elapsed time (3.MD.A.1c). Unit 7 brings students through all three components of rigor in a seamless way. The focus is on addition and subtraction within 1000 (3.NBT.A.2). Throughout the unit, students build conceptual understanding through the use of strategies based on place value understanding to solve problems and modeling their thinking with open number lines. There are multiple opportunities for students to practice adding and subtracting numbers within 1000 with no context and to apply the skills to word problems. For example, in Session 3.1, students solve addition and subtraction word problems involving distance. Then students discuss various strategies for solving the problems, building conceptual understanding. The lesson concludes with a Daily Practice session where students have the opportunity to solve 6 addition problems within 1000 with no context.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
Non-Negotiable **4. FOCUS AND COHERENCE VIA PRACTICE STANDARDS:** Materials promote focus and coherence by connecting practice standards with content that is emphasized in the Standards. ☒ Yes ☐ No	**REQUIRED** **4a)** Materials address the practice standards in such a way as to enrich the content standards of the grade/course; practices strengthen the focus on the content standards instead of detracting from them, in both teacher and student materials.	**Yes**	The materials address the practice standards in such a way as to enrich the content standards of the grade; practices strengthen the focus on the content standards instead of detracting from them. Throughout the entire curriculum, math practices are addressed within most lessons, and there are teacher notes within the lessons that reference the practice standards that are addressed and how they are addressed. For example, in Unit 1 Session 4.1, students engage in MP 7, look for and make use of structure, as they begin understanding the relationship between multiplication and division. They compare multiplication word problems with division word problems, noting that both types of problems involve equal groups. They begin to ask themselves what information is given in a word problem in order to determine if they should multiply or divide. The teacher note states, "...students must learn to keep track of the structure of the problem - its elements, the relationship among them, and how they are operating on them in order to find the desired result." In Unit 4 Session 2.2, students attempt to cover a 10 x 8 rectangle with Tetrominoes. Students must explain which Tetrominoes they found would cover the whole rectangle, which did not work, and why these shapes did not work. Students are encouraged to agree or disagree with their classmates' explanations and justify their thinking, effectively engaging them in MP 3, construct viable arguments and critique the reasoning of others. In Unit 5 Session 1.2, students create a 3-color cube train as a context for learning about multiples of 3. They engage in MP 2, reason abstractly and quantitatively, as they make connections between equations and the cube train, such as showing what 6 = 2 x 3 means in relationship to the cube train. The teacher note states, "...As students move between the actual cube trains and the equations, make sure that they can both generate an equation from a cube train and also determine what cube train represents an equation…" In Unit 6 Session 1.2, students create fraction strips and use the strips to

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			order unit fractions from smallest to largest. Then they try to come up with a rule about how fractions can be ordered and why that rule works. Students engage in MP 8 as they look for and express regularity in repeated reasoning as they notice that as the denominator of a unit fraction gets larger, the corresponding fractional piece gets smaller.
SECTION II: ADDITIONAL ALIGNMENT CRITERIA AND INDICATORS OF QUALITY			
Additional Criterion **5. ALIGNMENT CRITERIA FOR STANDARDS FOR MATHEMATICAL CONTENT:** Materials foster focus and coherence by linking topics (across domains and clusters) and across grades/courses by staying consistent with the progressions in the Standards. ☐ Yes ☐ No	**REQUIRED** **5a)** Materials provide all students extensive work with course-level problems. Review of material from previous grades and courses is clearly identified as such to the teacher, and teachers and students can see what their specific responsibility is for the current year.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	REQUIRED **5b)** Materials relate course-level concepts explicitly to prior knowledge from earlier grades and courses. The materials are designed so that prior knowledge becomes reorganized and extended to accommodate the new knowledge.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	5c) Materials base content progressions on the progressions in the Standards.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	5d) Materials include learning objectives that are visibly shaped by CCSSM cluster headings and/or standards.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	5e) Materials preserve the focus, coherence, and rigor of the Standards even when targeting specific objectives.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
Additional Criterion **6. ALIGNMENT CRITERIA FOR STANDARDS FOR MATHEMATICAL PRACTICE:** Aligned materials make meaningful and purposeful connections that enhance the focus and coherence of the Standards rather than	**REQUIRED** **6a)** Materials attend to the full meaning of each practice standard. Over the course of any given year of instruction, each mathematical practice standard is meaningfully present in the form of assignments, activities, or problems that stimulate students to develop the habits of mind described in the practice standard. Alignments to practice standards are accurate.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.

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

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

FINAL EVALUATION

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

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

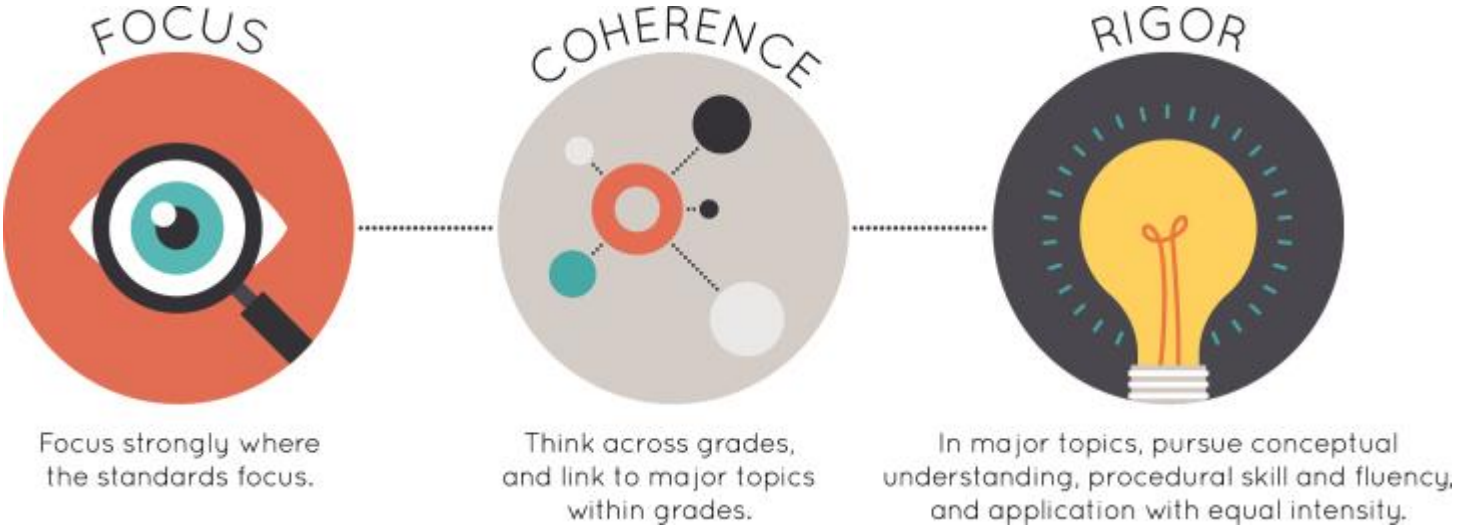
Tier 3 ratings receive a "No" in Column 1 for at least one of the non-negotiable criteria.

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

Section	Criteria	Yes/No	Final Justification/Comments
I: Non-Negotiables	1. Focus on Major Work	**No**	97 out of 144 lessons, or 67%, are devoted to major content of Grade 3. However, the materials assess some content beyond Grade 3 Standards.
	2. Consistent, Coherent Content	**Yes**	The materials make meaningful connections between supporting standards and major standards, as well as between the different domains and clusters of Grade 3.
	3. Rigor and Balance	**Yes**	The materials are designed in a way to help students develop conceptual understanding, procedural skills, and applications with Grade 3 Standards.
	4. Focus and Coherence via Practice Standards	**Yes**	The materials engage students in the Mathematical Practice standards in a way that enhances the major work of Grade 3.
II: Additional Alignment Criteria and Indicators of Quality	5. Alignment Criteria for Standards for Mathematical Content	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	6. Alignment Criteria for Standards for Mathematical Practice	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	7. Indicators of Quality	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
FINAL DECISION FOR THIS MATERIAL: **Tier III, Not representing quality**			

Strong mathematics instruction contains the following elements:



Title: **Investigations in Number, Data, and Space, 3rd Edition** Grade/Course: **4**

Publisher: **Pearson Education** Copyright: **2017**

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

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

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

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

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

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
SECTION I: NON-NEGOTIABLE CRITERIA: Submissions must meet all of the non-negotiable criteria in order for the review to continue.			
Non-Negotiable **1. FOCUS ON MAJOR WORK[9]:** Students and teachers using the materials as designed devote the large majority[10] of time to the major work of the grade/course. ☐ Yes ☒ No	**REQUIRED** **1a)** Materials should devote the large majority of class time to the major work of each grade/course. Each grade/course must meet the criterion; do not average across two or more grades.	**No**	A majority of time is not devoted to the major work of Grade 4. According to the Investigations Content Guide for Grade 4 released by the publisher, 87 out of 132 lessons, or 65%, are devoted to the major content standards. 18 out of 132 lessons, or 14%, are devoted to supporting content standards. 27 out of 132 lessons, or 20%, are devoted to additional content standards.
	REQUIRED **1b)** In any one grade/course, instructional materials should spend minimal time on content outside of the appropriate grade/course. Previous grade/course content should be used only for scaffolding instruction. In assessment materials there are no chapter tests, unit tests, or other such assessment components that make students or teachers responsible for any topics before the grade/course in which they are introduced in the Standards.	**No**	The materials spend minimal time on content outside the grade level. However, there is some content assessed that is beyond Grade 4 standards. For example, on the Unit 6 assessment, Problem 16 shows a line plot. The question asks students to determine the difference between the longest snake and the shortest snake. Solving this problem requires students to subtract 1 ⅜ - ¼. Standard 4.NF.B.3c states that students should add and subtract fractions with like denominators. Students do not learn to subtract fractions with unlike denominators until Grade 5. Problem 24, which also shows data in a line plot, goes beyond the same standard. The question asks students to determine how much longer 3 ½ is than the longest snake. To solve this, students would have to subtract 3 ½ - 1 ⅜, fractions with unlike denominators.
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**	The materials connect supporting content to major content in meaningful ways. For example, Unit 5 Session 2.6 meaningfully connects supporting Standard 4.MD.A.2 with major Standard 4.OA.A.3. In the lesson, students use a mileage chart to solve multi-step word problems about distance traveled. Unit 6 Session 3.3 meaningfully connects supporting Standard 4.MD.B.4 with major Standard 4.NF.B.3d. In the lesson, students create a line plot from given data on the span of butterfly wings. Then they solve word problems involving the data, such as finding the difference between two butterfly wing spans, requiring students to subtract fractions with like

[9] For more on the major work of the grade, see Focus by Grade Level.
[10] 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
			denominators.
	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 serve to connect two or more clusters in a domain and two or more domains within the grade. For example, Unit 1 connects clusters 4.OA.A, Use the four operations with whole numbers to solve problems, and 4.OA.B ,Gain familiarity with factors and multiples. This unit focuses on various representations and uses of multiplication. Students use arrays to represent multiplication situations and factors of 2-digit numbers, identify prime, square, and composite numbers, and review multiplication facts. They solve multiplicative comparison problems and represent them with multiplication equations. Students explore the relationships between factors and multiples using various strategies such as skip counting and using known factors to find related factors for a given number. Unit 4 Session 3.2 connects the Geometry Domain with the Measurement and Data Domain. In the lesson, students determine the angle measures (4.MD.C.5) in given 2-D shapes (4.G.A.1). Unit 5 Session 3.4 connects the clusters 4.NBT.A, Generalize place value understanding for multi-digit whole numbers, and 4.NBT.B, Use place value understanding and properties of operations to perform multi-digit arithmetic. In the lesson, students use the standard algorithm to add multi-digit whole numbers (4.NBT.B.4). Then they use symbols >, <, or = to compare the sums (4.NBT.A.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	**REQUIRED** **3a)** ***Attention to Conceptual Understanding:*** Materials develop conceptual understanding of key mathematical concepts, especially where called for explicitly in specific content standards or cluster headings by amply featuring high-quality conceptual problems and discussion questions.	**Yes**	The materials develop conceptual understanding of key mathematical concepts, especially where called for explicitly in specific content standards or cluster headings. For example, Unit 5 helps students build conceptual understanding of Standard 4.NBT.A.1, Recognize that a digit in one place of a multi-digit number represents 10 times what it represents in the place to its right. They begin in Session 3.1 by building a 10,000 chart with hundreds. In Session 3.2, students use what they learned in the previous session to determine how they would explain to a third grader how many tens are in 10,000. This leads

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
application. ☒ Yes ☐ No			into a discussion of what students notice about the meaning of the 1 changes as the numbers get larger and guides students to the understanding that as a digit moves one place to the left, its value becomes 10 times greater. Students use the conceptual understanding of place value built to solve multi-digit addition and subtraction problems (4.NBT.B.4) in subsequent lessons. For example, in Unit 5 Session 3.4, students use the standard algorithm to subtract. Then they engage in discussion about how they would explain to someone what is going on with the numbers when they regrouped - what do the little numbers mean and why are some numbers crossed out? Conceptual understanding is often supported in the lessons through teacher questioning. For example, in Unit 3 Session 3.3, students multiply by multiples of 10 (4.NBT.B.5). The suggested teacher questions guide students toward thinking about the patterns they notice and why it works: "When you solve a problem like 5 x 60 in which one number is a multiple of 10, will it always work to think of the solution as 5 x 6 and then put another zero on the number? Why can you do this? Who can use a representation to explain why this works?" There are multiple examples of high-quality questioning that builds conceptual understanding throughout the materials.
	REQUIRED **3b)** ***Attention to Procedural Skill and Fluency:*** The materials are designed so that students attain the fluencies and procedural skills required by the Standards. Materials give attention throughout the year to individual standards that set an expectation of procedural skill and fluency. In grades K-6, materials provide repeated practice toward attainment of fluency standards. In higher grades, sufficient practice with algebraic operations is provided in order for students to have the foundation for later work in algebra.	**Yes**	Materials are designed so that students attain the fluencies and procedural skills required by the standards. All 8 units include opportunities for students to develop procedural skills as required by the Standards. Unit 5 focuses heavily on solving addition and subtraction problems with multi-digit whole numbers using the standard algorithm (4.NBT.B.4). Students continue working toward fluency with this skill as required by the standards in the Daily Practice sessions of Unit 6 Sessions 1.1, 1.3, 1.5, 2.4, and 2.5. In Unit 6, students are given multiple opportunities to develop procedural skill with generating equivalent fractions for given fractions (4.NF.A.1) using visual representations when needed. In Unit 8 Sessions 1.5 and 1.6, the

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			Daily Practice sessions provide students with the opportunity to solve multi-digit multiplication and division problems (4.NBT.B.5 and 4.NBT.B.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 teachers and students spend sufficient time working with engaging applications. The problems do attend thoroughly to those places in the content standards where expectations for multi-step and real-world problems are explicit. All 8 units include lessons involving word problems. For example, in Unit 3 Session 1.1, students solve 3 multi-step word problems (4.OA.A.3), in Session 2.1 students solve 4 division word problems, and in Session 2.3, students solve 4 more division word problems. The Review and Practice session at the beginning of Sessions 1.1-1.3 and 1.7 in Unit 7 provide students with elapsed time word problems (4.MD.A.2). Unit 4 Session 1.3 and Unit 7 Session 1.2 are focused on Standard 4.MD.A.2 and provide multiple word problems about measurement for students to solve. Unit 7 Session 3.2 provides 3 division word problems in the Daily Practice, and the Daily Practice in Unit 7 Session 3.4 provides practice with multi-step word problems. In Unit 8 Session 1.7, the Daily Practice provides 3 multi-step word problems to solve as well as 2 2-digit x 2-digit multiplication problems where students should write their own word problems to match the equations. The Unit 8 Session 1.9 Daily Practice provides more practice with multi-step word problems (4.OA.A.3).
	REQUIRED **3d) *Balance:*** The three aspects of rigor are not always treated together and are not always treated separately.	**Yes**	The three components of rigor are balanced within the curriculum, sometimes treated together and sometimes treated separately. The Review and Practice session at the beginning of each lesson often focuses on spiraling in previous skills related to any of the 3 components of rigor. For example, the Review and Practice session at the beginning of Unit 2 Session 1.1 gives students the opportunity to build procedural skill with computation as they write expressions that equal a given number. Students also build conceptual understanding in this activity because they must explain why their equations are

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			correct. Unit 6 moves students through all three components of rigor around multiplying a fraction and a whole number as required by Standard 4.NF.B.4. Students begin by developing conceptual understanding of multiplication of a fraction and whole number by relating it to what they know about multiplication with whole numbers. They solve word problems involving multiplying fractions and whole numbers by creating drawings or using number lines to give the math meaning and help with understanding. Students also have multiple opportunities within the unit to solve problems presented numerically to build procedural skill.
Non-Negotiable **4. FOCUS AND COHERENCE VIA PRACTICE STANDARDS:** Materials promote focus and coherence by connecting practice standards with content that is emphasized in the Standards. ☒ Yes ☐ No	**REQUIRED** **4a)** Materials address the practice standards in such a way as to enrich the content standards of the grade/course; practices strengthen the focus on the content standards instead of detracting from them, in both teacher and student materials.	**Yes**	The materials address the practice standards in such a way as to enrich the content standards of the grade; practices strengthen the focus on the content standards instead of detracting from them. Throughout the entire curriculum, math practices are addressed within most lessons, and there are teacher notes within the lessons that reference the practice standards that are addressed and how they are addressed. For example, in Unit 2 Session 1.2, students engage in MP 6, Attend to precision, as they measure the height of their classmates to the nearest inch. They consider how they know they are measuring accurately and how they determine what the "nearest inch" is. In Unit 3 Session 1.1, students engage in MP 2, Reason abstractly and quantitatively, and MP 4, Model with mathematics, as they make representations to solve word problems and connect their representations to the problem. The teacher note states, "As students move between a multiplication context and the numbers that describe that context, they are engaged in reasoning abstractly and quantitatively…." In Unit 5 Session 3.6, students solve problems with large numbers. During the discussion, students engage in MP 5, Use appropriate tools strategically, as they consider which strategies they would choose for different subtraction problems (4.NBT.B.4). In Unit 6 Session 1.5, students learn to identify decimal and fraction

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			equivalents (4.NF.C.6). They consider if the given equation, 3/10 = 0.3 = 30/100, is true and try to find a way to explain their thinking using visual representations, effectively engaging in MP 3, Construct viable arguments and critique the reasoning of others. Students again engage in MP 3 in Unit 6 Session 4.3 around Standard 4.NF.B.4. Students determine if 1 ⅔ is a reasonable answer to 5 x ⅓. They confront the false idea that a product is always larger than the two numbers being multiplied by examining counterexamples and use these examples to help explain their thinking.
SECTION II: ADDITIONAL ALIGNMENT CRITERIA AND INDICATORS OF QUALITY			
Additional Criterion **5. ALIGNMENT CRITERIA FOR STANDARDS FOR MATHEMATICAL CONTENT:** Materials foster focus and coherence by linking topics (across domains and clusters) and across grades/courses by staying consistent with the progressions in the Standards. ☐ Yes ☐ No	**REQUIRED** **5a)** Materials provide all students extensive work with course-level problems. Review of material from previous grades and courses is clearly identified as such to the teacher, and teachers and students can see what their specific responsibility is for the current year.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	REQUIRED **5b)** Materials relate course-level concepts explicitly to prior knowledge from earlier grades and courses. The materials are designed so that prior knowledge becomes reorganized and extended to accommodate the new knowledge.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	5c) Materials base content progressions on the progressions in the Standards.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	5d) Materials include learning objectives that are visibly shaped by CCSSM cluster headings and/or standards.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	5e) Materials preserve the focus, coherence, and rigor of the Standards even when targeting specific objectives.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
	ways of thinking and anticipating a variety of students responses, guidance on lesson flow, guidance on questions that prompt students thinking, and discussion of desired mathematical behaviors being elicited among students.		
	7c) Support for English Language Learners and other special populations is thoughtful and helps those students meet the same standards as all other students. The language in which problems are posed is carefully considered.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	7d) The underlying design of the materials distinguishes between problems and exercises. In essence the difference is that in solving problems, students learn new mathematics, whereas in working exercises, students apply what they have already learned to build mastery. Each problem or exercise has a purpose.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	7e) Lessons are appropriately structured and scaffolded to support student mastery.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	7f) Materials support the uses of technology as called for in the Standards.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.

FINAL EVALUATION

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

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

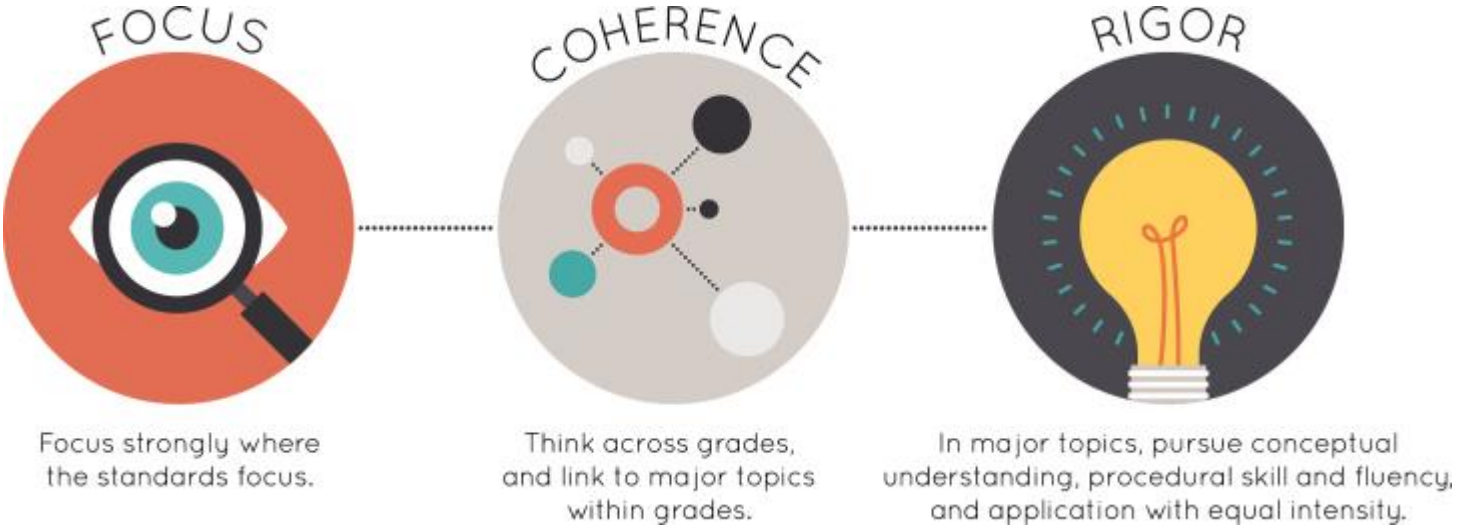
Tier 3 ratings receive a "No" in Column 1 for at least one of the non-negotiable criteria.

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

Section	Criteria	Yes/No	Final Justification/Comments
I: Non-Negotiables	1. Focus on Major Work	**No**	87 out of 144 lessons, or 65%, are devoted to major content of Grade 4. However, the materials assess some content beyond Grade 4 Standards.
	2. Consistent, Coherent Content	**Yes**	The materials make meaningful connections between supporting standards and major standards, as well as between the different domains and clusters of Grade 4.
	3. Rigor and Balance	**Yes**	The materials are designed in a way to help students develop conceptual understanding, procedural skills, and applications with Grade 4 Standards.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
	4. Focus and Coherence via Practice Standards	**Yes**	The materials engage students in the Mathematical Practice standards in a way that enhances the major work of Grade 4.
II: Additional Alignment Criteria and Indicators of Quality	5. Alignment Criteria for Standards for Mathematical Content	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	6. Alignment Criteria for Standards for Mathematical Practice	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	7. Indicators of Quality	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
FINAL DECISION FOR THIS MATERIAL: **Tier III, Not representing quality**			

Strong mathematics instruction contains the following elements:



Title: **Investigations in Number, Data, and Space, 3rd Edition**

Grade/Course: **5**

Publisher: **Pearson Education**

Copyright: **2017**

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

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

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

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

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

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

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
SECTION I: NON-NEGOTIABLE CRITERIA: Submissions must meet all of the non-negotiable criteria in order for the review to continue.			
Non-Negotiable **1. FOCUS ON MAJOR WORK[11]:** Students and teachers using the materials as designed devote the large majority[12] of time to the major work of the grade/course. ☐ Yes ☒ No	**REQUIRED** **1a)** Materials should devote the large majority of class time to the major work of each grade/course. Each grade/course must meet the criterion; do not average across two or more grades.	**Yes**	According to the Investigations Content Guide for Grade 5 released by the publisher, 103 out of 135 lessons, or 76%, are aligned with major work for Grade 5. 5 out of 135 lessons, or 4%, are devoted to supporting content for Grade 5. 27 out of 135 lessons, or 20%, are devoted to additional content for Grade 5. However, it should be noted that there are lessons that review previous grade content and are not clearly labeled as scaffolding or review lessons. For example, Unit 1 contains 19 lessons focused on major content Clusters 5.NBT.A and 5.NBT.B and additional content Cluster 5.OA.A. Sessions 1.1-1.3 and 2.1-2.7, or 10 of the 19 lessons in Unit 1, are review of Grade 4 multiplication content; however, they are not clearly marked as such. Unit 3 Sessions 1.1-1.6 focus on comparing and ordering fractions (4.NF.A.2), and these are also not clearly marked as review lessons.
	REQUIRED **1b)** In any one grade/course, instructional materials should spend minimal time on content outside of the appropriate grade/course. Previous grade/course content should be used only for scaffolding instruction. In assessment materials there are no chapter tests, unit tests, or other such assessment components that make students or teachers responsible for any topics before the grade/course in which they are introduced in the Standards.	**No**	The materials spend minimal time on content outside the grade level. However, there is some content assessed that is beyond Grade 5 standards. For example, on the Unit 6 assessment, Problem 15 is a word problem involving operations with decimals. It requires students to subtract decimals to the thousandths place. Standard 5.NBT.B.7 limits operations with decimals to hundredths. Problem 24 on the same assessment requires students to subtract to the thousandths place on 3 different equations. Unit 6 Quiz 2 Problem 5 also requires students to add decimals to the thousandths place.
Non-Negotiable **2. CONSISTENT, COHERENT CONTENT** Each course's instructional	**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. There are two supporting standards in Grade 5: 5.MD.A.1, Convert among different-sized standard measurement units within a given measurement and use these

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

[12] 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
materials are coherent and consistent with the content in the Standards. ☒ Yes ☐ No			conversions in solving multi-step, real-world problems, and 5.MD.B.2, make a line plot to display data and solve problems using the data. Unit 3 Session 3.5 connects supporting Standard 5.MD.B.2 with major Standard 5.NF.A.1. In the lesson, students solve addition and subtraction fraction problems involving data from a line plot. Unit 7 Sessions 3.8-3.11 meaningfully connect supporting Standard 5.MD.A.1 with major Standard 5.NBT.B.7. In the lesson, students use what they know about multiplying and dividing with whole numbers and decimals to solve problems involving metric measurement conversions.
	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 serve to connect two or more clusters in a domain and two or more domains within the grade. For example, Unit 6 Session 2.3 meaningfully connects Clusters 5.NBT.A and 5.NBT.B. In the lesson, students compare 5 decimals (5.NBT.A.3b), then add the three greatest of the decimals (5.NBT.B.7). Unit 7 Session 2.2 meaningfully connects the Numbers and Operations in Base Ten Domain and the Number and Operations - Fractions Domain. In this lesson, students interpret fractions as division of the numerator by the denominator (5.NF.B.3). They enter these calculations in a calculator to identify the decimal equivalents of given fractions (5.NBT.A.3).
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.	**REQUIRED** **3a)** ***Attention to Conceptual Understanding:*** Materials develop conceptual understanding of key mathematical concepts, especially where called for explicitly in specific content standards or cluster headings by amply featuring high-quality conceptual problems and discussion questions.	**Yes**	The materials develop conceptual understanding of key mathematical concepts, especially where called for explicitly in specific content standards or cluster headings. Unit 3 Session 2.3 helps students build conceptual understanding of adding fractions. Before adding, students are encouraged to estimate what the sum will be (5.NF.A.2b). Teachers can guide this reasoning by asking the questions provided, such as, "Do you think the sum will be less than or greater than ½? 1? How do you know?" In Session 2.3-2.7, students use invented strategies for adding and subtracting fractions. This leads into Session 3.1, where the teacher leads a discussion on what students can notice about the denominators

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
☒ Yes ☐ No			when they add or subtract fractions. It is only when students have made the connection that the teacher introduces the strategy "finding a common denominator." In Unit 6 Session 1.2, students begin to understand decimals to the thousandths place (5.NBT.A.3). Students represent decimals on grids as well as in fraction form. In the next lesson, teacher questioning helps students develop understanding of comparing decimals to thousandths (5.NBT.A.3b). For example, after having students figure out how to compare 0.465 and 0.73 using grids if needed, the teacher is prompted to ask, "Why isn't 0.465 greater even though it has more digits?" In Unit 7 Session 3.6, students begin learning how to divide by decimals (5.NBT.B.7). They begin by relating it to what they know about dividing whole numbers and relating division to multiplication by thinking of the division problem as a missing factor problem. Students use 10 x 10 grids to model the decimals division problems, solve clusters of similar problems, and look for and explain patterns they notice.
	REQUIRED **3b)** ***Attention to Procedural Skill and Fluency:*** The materials are designed so that students attain the fluencies and procedural skills required by the Standards. Materials give attention throughout the year to individual standards that set an expectation of procedural skill and fluency. In grades K-6, materials provide repeated practice toward attainment of fluency standards. In higher grades, sufficient practice with algebraic operations is provided in order for students to have the foundation for later work in algebra.	**Yes**	Materials are designed so that students attain the fluencies and procedural skills required by the standards. All 8 units include opportunities for students to develop procedural skills as required by the Standards. For example, in Unit 1, order of operations (5.OA.A.1) is taught in Investigation 1. Then in Sessions 2.1-2.4 and 3.4-3.7, the Review and Practice at the beginning of each lesson spirals in this procedural skill. This skill is practiced in other lessons as well throughout the year, such as Unit 3 Session 3.2 and Unit 4 Session 2.1 in the Daily Practice sessions. Standard 5.NBT.B.5 calls for students to develop fluency with multi-digit multiplication using the standard algorithm. In Unit 4 Session 1.1, students solve several multi-digit multiplication problems (5.NBT.B.5) using a variety of strategies within the lesson activity and then solve more multi-digit multiplication problems in the Daily Review. In the next lesson, students are provided more practice with solving multi-digit multiplication problems using various strategies, and

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			in Session 1.3, the standard algorithm for multi-digit multiplication is introduced. Students practice using the standard algorithm for multi-digit multiplication in Session 1.4 and 1.5 as the main focus of both lessons. Students have more opportunities to practice multi-digit multiplication in subsequent lessons, such as Unit 4 Sessions 2.4-2.6 and 3.2-3.4 and Unit 5 Session 1.1 and 1.4 in the Daily Practice sessions. Another standard which calls specifically for procedural skill is 5.NF.A.1, add and subtract fractions with unlike denominators. Students develop understanding of this skill in Unit 3 Sessions 2.1-2.7. Students continue to practice adding and subtracting fractions with unlike denominators, including mixed numbers, in Sessions 3.1-3.6. This skill is practiced in other lessons as well throughout the year, such as Unit 4 Session 1.5 in the Daily Practice session.
	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 teachers and students spend sufficient time working with engaging applications. The problems do attend thoroughly to those places in the content standards where expectations for multi-step and real-world problems are explicit. All 8 units include lessons involving word problems. There are many word problems involving the four operations throughout the materials, such as in the Daily Practice sessions of Unit 1 Sessions 3.2 and 3.3, and Unit 6 Session 2.1; however, there is no Grade 5 standard that explicitly calls for solving word problems around the 4 operations. Standard 5.NF.A.2, solve word problems involving addition and subtraction of fractions, specifically calls for application. Unit 3 Session 2.3 includes two addition and subtraction fraction word problems during the Math Workshop. Unit 3 Sessions 2.7, 3.1, 3.3, and 3.5 also include addition and subtraction fraction word problems during the lesson activity. Another standard that specifically calls for application is 5.NF.B.3, Interpret a fraction as division and solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			This standard is taught in Unit 7 Sessions 2.1 and 2.2. It is revisited with more word problems in Session 2.4.
	REQUIRED **3d) *Balance:*** The three aspects of rigor are not always treated together and are not always treated separately.	**Yes**	The three components of rigor are balanced within the curriculum, sometimes treated together and sometimes treated separately. The Review and Practice session at the beginning of each lesson often focuses on spiraling in previous skills related to any of the 3 components of rigor. For example, Unit 7 Session 1.1 Review and Practice session helps students build conceptual understanding with reading, writing, and rounding decimals, and writing them in expanded form (5.NBT.A.3). Unit 7 moves students through all three components of rigor around multiplying fractions as required by Standards 4.NF.B.4 and 4.NF.B.6. Unit 7 Session 1.1 introduces multiplication of fractions with word problems. Placing the abstract concept into context gives the math meaning and gives students an entry point to make sense of the math. Students create representations to model the real-world problems and relate to what they know about multiplying with whole numbers. In Session 1.3, students use bar models to represent fraction multiplication and explain why they end up with sixths when they multiply halves and thirds. In each lesson in this unit, students apply fraction multiplication to real-world problems. Students also have multiple opportunities within the unit to solve problems presented numerically to build procedural skill.
Non-Negotiable **4. FOCUS AND COHERENCE VIA PRACTICE STANDARDS:** Materials promote focus and coherence by connecting practice standards with content that is emphasized in the Standards. ☒ Yes ☐ No	**REQUIRED** **4a)** Materials address the practice standards in such a way as to enrich the content standards of the grade/course; practices strengthen the focus on the content standards instead of detracting from them, in both teacher and student materials.	**Yes**	The materials address the practice standards in such a way as to enrich the content standards of the grade; practices strengthen the focus on the content standards instead of detracting from them. Throughout the entire curriculum, math practices are addressed within most lessons, and there are teacher notes within the lessons that reference the practice standards that are addressed and how they are addressed. For example, in Unit 3 Session 2.1, students engage in MP 3, construct viable arguments and critique the reasoning of others, as

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			they figure out how to add ⅓ + ⅙ using the clock face as a reference. Students explain their strategies to classmates and try to make sense of others' strategies. The teacher note states, "One component of critiquing arguments is working to understand an approach that is different than your own. Ask students to paraphrase an explanation for a method different from the one they used to help them understand approaches that might be less familiar to them." In Unit 4 Session 2.1, students engage in MP 2, Reason abstractly and quantitatively, as they create a story problem that represents a given equation, solve the problem and show their solution clearly, and draw a representation of the problem. Teachers help engage students in this practice through questioning, such as, "In your story context, what does the 12 mean? What does the R2 mean?", which helps students move between the story context and the numbers that represent the story. In Unit 7 Session 3.6, students engage in MP 7, Look for and make use of structure. In the lesson, they use what they know about the base-ten structure and place value, in addition to understanding the structure of operations and the fact that division can be thought of as a missing factor problem, to figure out how to divide a whole number by decimals (5.NBT.B.7).
SECTION II: ADDITIONAL ALIGNMENT CRITERIA AND INDICATORS OF QUALITY			
Additional Criterion **5. ALIGNMENT CRITERIA FOR STANDARDS FOR MATHEMATICAL CONTENT:** Materials foster focus and coherence by linking topics (across domains and clusters) and across grades/courses by staying consistent with the progressions in the Standards.	**REQUIRED** **5a)** Materials provide all students extensive work with course-level problems. Review of material from previous grades and courses is clearly identified as such to the teacher, and teachers and students can see what their specific responsibility is for the current year.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	REQUIRED **5b)** Materials relate course-level concepts explicitly to prior knowledge from earlier grades and courses. The materials are designed so that prior knowledge becomes	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.

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☐ Yes ☐ No	reorganized and extended to accommodate the new knowledge.		
	5c) Materials base content progressions on the progressions in the Standards.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	5d) Materials include learning objectives that are visibly shaped by CCSSM cluster headings and/or standards.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	5e) Materials preserve the focus, coherence, and rigor of the Standards even when targeting specific objectives.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
Additional Criterion **6. ALIGNMENT CRITERIA FOR STANDARDS FOR MATHEMATICAL PRACTICE:** Aligned materials make meaningful and purposeful connections that enhance the focus and coherence of the Standards rather than detract from the focus and include additional content/skills to teach which are not included in the Standards. ☐ Yes ☐ No	**REQUIRED** **6a)** Materials attend to the full meaning of each practice standard. Over the course of any given year of instruction, each mathematical practice standard is meaningfully present in the form of assignments, activities, or problems that stimulate students to develop the habits of mind described in the practice standard. Alignments to practice standards are accurate.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	REQUIRED **6b)** Materials provide sufficient opportunities for students to construct viable arguments and critique the arguments of others concerning key grade-level mathematics that is detailed in the content standards (cf. MP.3). Materials engage students in problem solving as a form of argument, attending thoroughly to places in the Standards that explicitly set expectations for multi-step problems.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	6c) There are teacher-directed materials that explain the role of the practice standards in the classroom and in students' mathematical development.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	6d) Materials explicitly attend to the specialized language of mathematics.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
Additional Criterion **7. INDICATORS OF QUALITY:**	**REQUIRED** **7a)** There is variety in what students produce. For	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.

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Quality materials should exhibit the indicators outlined here in order to give teachers and students the tools they need to meet the expectations of the Standards. ☐ Yes ☐ No	example, students are asked to produce answers and solutions, but also, in a grade-appropriate way, arguments and explanations, diagrams, mathematical models, etc.		
	REQUIRED **7b)** There are separate teacher materials that support and reward teacher study including, but not limited to: discussion of the mathematics of the units and the mathematical point of each lesson as it relates to the organizing concepts of the unit, discussion on student ways of thinking and anticipating a variety of students responses, guidance on lesson flow, guidance on questions that prompt students thinking, and discussion of desired mathematical behaviors being elicited among students.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	7c) Support for English Language Learners and other special populations is thoughtful and helps those students meet the same standards as all other students. The language in which problems are posed is carefully considered.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	7d) The underlying design of the materials distinguishes between problems and exercises. In essence the difference is that in solving problems, students learn new mathematics, whereas in working exercises, students apply what they have already learned to build mastery. Each problem or exercise has a purpose.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	7e) Lessons are appropriately structured and scaffolded to support student mastery.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	7f) Materials support the uses of technology as called for in the Standards.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
FINAL EVALUATION ***Tier 1 ratings*** receive a "Yes" in Column 1 for Criteria 1 – 7. ***Tier 2 ratings*** receive a "Yes" in Column 1 for all non-negotiable criteria (Criteria 1 – 4), but at least one "No" in Column 1 for the remaining criteria. ***Tier 3 ratings*** receive a "No" in Column 1 for at least one of the non-negotiable criteria.			

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Compile the results for Sections I and II to make a final decision for the material under review.			
Section	**Criteria**	**Yes/No**	**Final Justification/Comments**
I: Non-Negotiables	1. Focus on Major Work	**No**	103 out of 135 lessons, or 76%, are aligned with major content of Grade 5. However, the materials assess some content beyond Grade 5 Standards.
	2. Consistent, Coherent Content	**Yes**	The materials make meaningful connections between supporting standards and major standards, as well as between the different domains and clusters of Grade 5.
	3. Rigor and Balance	**Yes**	The materials are designed in a way to help students develop conceptual understanding, procedural skills, and applications with Grade 5 Standards.
	4. Focus and Coherence via Practice Standards	**Yes**	The materials engage students in the Mathematical Practice standards in a way that enhances the major work of Grade 5.
II: Additional Alignment Criteria and Indicators of Quality	5. Alignment Criteria for Standards for Mathematical Content	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	6. Alignment Criteria for Standards for Mathematical Practice	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	7. Indicators of Quality	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
FINAL DECISION FOR THIS MATERIAL: **Tier III, Not representing quality**			

Appendix I.

Publisher Response

The publisher had no response.

Appendix II.

Public Comments

There were no public comments submitted.