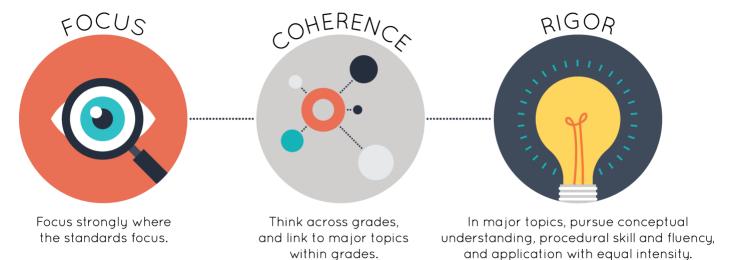


Assessment Evaluation Tool for Alignment in Mathematics Grades K – HS (AET)

nment in
HS (AET)
BENCHMARK
ASSESSMENTS

Original Posting Date: 10/14/16 Redacted

Strong mathematics instruction contains the following elements:



Title: CASE Benchmark Assessments Grades: 6-7

Publisher: <u>TE21, Inc.</u> Copyright: <u>2016</u>

Overall Rating: <u>Tier III, Not representing quality</u>
<u>Tier I, Tier III, Tier III Elements of this review:</u>

STRONG	WEAK
2. Focus on Major Work (Non-Negotiable)	1. Alignment of Test Items (Non-Negotiable)
	3. Focus (Non-Negotiable)
	4. Rigor and Balance (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. In Section II, review each indicator individually.

Tier 1 ratings receive a "Yes" in Column 1 for Criteria 1 - 9.

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

Tier 3 ratings receive a "No" in Column 1 in Section I.

^{*} The criteria in Section I apply to fixed form or CAT assessments, whether summative assessments or a set of interim/benchmark assessments. Item banks also should reflect the full intent of the indicators.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
SECTION I: NON-NEGOTIABLE CRIT	ERIA: Submissions must meet all non-negotiable criteria i	n order for the	review to continue.
Non-Negotiable 1. ALIGNMENT OF TEST ITEMS: Test items and/or sets of items elicit direct, observable evidence of the degree to which a student can independently demonstrate the targeted Standard(s) Yes No	1a) 90% of items and/or sets of items exhibit alignment to the full intent of the LSSM for that grade/course.	No	The sixth-grade assessment has an 86% alignment between its items and corresponding standards. Seven items do not address the full intent of the standard linked to the item on the answer key. For example, Item 5 is linked to 6.EE.B8, which calls for inequalities to be graphed on a number line with infinitely many solutions; however, this solution is a finite set of minutes. Another example is found in Item 16, which is linked to 6.SP.A.3. It calls for a single number to be a measure of center or variation; however, this item simply requires students to find the difference in attendance values from year to year. Lastly, short response Item 2 (labeled #87 on the answer key) does not address the full intent of 6.NS.A.1, which requires division of fractions to solve problems. This item gives a context and a model, which eliminates the need for the algorithm because students can simply interpret the model for the solution. Requiring the answer in decimal form is not part of 6.NS.A.1. The seventh grade assessment has an 86% alignment between its items and corresponding standards. Seven items do not address the full intent of the standard linked to the item on the answer key. Three items, 34, 37, and 2 (the last of which is mislabeled as 87 on the answer key) assess sixth and fifth grade standards (5.NF.B.7b or 6.NS.A.1, 6.RP.A.3, and 5.NF.B.4a or 5.NF.B.6, respectively). Another three items, 13, 27, and 37 require students to solve real-world problems with whole numbers and percents. These items are listed to assess standard 7.EE.B.3, a standard that requires students to write and solve equations using positive negative rational numbers in any form. These three items are more closely aligned with standard 7.RP.A.3. The final item on the

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			seventh grade assessment, labeled number 5 on the test but listed as number 90 on the answer key, is also listed as assessing 7.EE.B.3. In this item, only positive quantities are involved.
			It is important to note that some of the standards listed on the sixth grade answer key do not exist: 6.SP.A.4 should be 6.SP.B.4 and 6.SP.A.5 should be 6.SP.B.5. Also on the sixth grade assessment, there are several problems that do not assess the corresponding standard listed on the answer key including Item 23 which assesses 6.NS.C.8, not 6.G.A.3 because students are not drawing polygons in the coordinate plane but are solving real-world problems and finding distances between points in the coordinate plane.
	1b) Items and/or sets of items adhere to content limitations outlined in the LSSM and the Assessment Guides. All limitations for all grades K-HS provided in footnotes of the LSSM are also followed.	Yes	Items adhere to the content limitations outlined in the LSSM and the Assessment Guides. On the sixth grade assessment, an example of this can be found in Item 39. It assesses standard 6.RP.A.3 and does not use a complex fraction. Another example is on the seventh grade assessment with Item 18 which references standard 7.G.B.6. The standard limits pyramids to surface area only and that is all this item addresses. An additional limitation for seventh grade is for coordinates to be confined to the first quadrant. Item 1 asks students to identify the proportional relationship between x and y coordinates in the first quadrant. Lastly, the eighth-grade assessment has appropriate functions using an equation and a table as seen in Item 14 (8.F.A.2).
	1c) Items and/or sets of items use the number system appropriate to the grade/course.	Yes	Items use the number system appropriate for sixth, seventh, and eighth grade mathematics. On the sixth grade assessment, there are whole
	For example, in grade 3 there are some items involving fractions greater than 1; in the middle grades, arithmetic and algebra use the rational number system, not just the integers.		and rational numbers used for computations and/or integers used when identifying on a number line in at least 15 of the items. The

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES	
			seventh grade assessment includes rational numbers for computations. The eighth grade assessment includes rational and irrational numbers throughout as well as numbers expressed in scientific notation.	
Non-Negotiable 2. FOCUS ON MAJOR WORK: The large majority of points in each grade/course are devoted to the major work of the grade. Yes No	 2a) Each grade/course's assessments meet or exceed the following score-point distributions for the major work of the grade. 85% of the total points in grades K-2 align exclusively to the major work of the grade. 75% of the total points in grades 3-5 align exclusively to the major work of the grade. 65% of the total points in grades 6-12 align exclusively to the major work of the grade. 	Yes	All grade level benchmark assessments exceed the 65% of the total points in sixth, seventh, and eighth grade mathematics which align exclusively to the major work of these courses. Using the alignment document given from the publisher, 34 out of 50 total points (68%) on the sixth grade assessment is major work of the grade. An example can be found in Item 3 where students are selecting the equivalent expressions (6.EE.A.3). On the seventh grade assessment, 35 out of 50 total points (70%) is major work of the grade. Item 27 has students find a unit rate in context of the problem (7.EE.B.3). Lastly, 37 out of 50 total points (74%) on the eighth grade assessment, Item 14 gives two different functions given in two different representations, an equation and a table and has students answer a question comparing the two (8.F.A.2).	
Non-Negotiable 3. FOCUS: No item assesses topics directly or indirectly before they are introduced in the LSSM. Yes No	3a) 100% of items on an assessment address only knowledge of topics found in the LSSM in the specified grade/course.	No	Less than 100% of the items on the sixth and seventh grade benchmark assessments address only knowledge of topics found in the LSSM. Item 2 on the short answer of the seventh-grade assessment is assessing a fifth-grade standard (5.NF.B.6).	
Non-Negotiable 4. RIGOR AND BALANCE: Each grade/course's assessments reflect the balances in the Standards and	4a) For Conceptual Understanding: K—High School: At least 20% of the total score-points on the assessment(s) for each grade or course explicitly require students to demonstrate conceptual understanding especially	Yes	At least 20% of the total score points on the sixth, seventh, and eighth grade benchmark assessments explicitly require students to demonstrate conceptual understanding. Conceptual understanding items comprise 56%	

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
help students meet the Standards' rigorous expectations by helping students develop conceptual understanding, procedural skill and fluency, and application. Yes No	where called for in specific content standards.		of the sixth grade assessment, 58% of the seventh grade assessment, and 70% of the eighth grade assessment. On the sixth grade assessment, Item 9 has students select which statement is true about the expression given, which requires students to have a conceptual understanding of the standard 6.EE.A.2. Item 42 is an example from the seventh grade assessment, which requires students to have a conceptual understanding of 7.SP.A.1. Students are required to understand which population of student should be selected for a survey. Lastly, Item 16 on the eighth grade assessment requires students to understand two linear functions, one given in words and one given via a graph, and compare the rates of the two. This assesses standard 8.F.A.2.
	4b) For Procedural Skill and Fluency: K—High School: At least 20% of the total score-points on the assessment(s) for each grade or course explicitly require students to demonstrate procedural skill and fluency, especially where called for in specific content standards.	No	Less than 20% of the total score points on the seventh grade benchmark assessment require students to demonstrate procedural skill or fluency. 4 out of 50 total score points (8%) on the seventh grade benchmark assessment requires students to demonstrate procedural skill or fluency. Seventh grade has one fluency standard, 7.EE.B.4. Items 7 and 9 are listed by the publisher as assessing this standard. However, both have been put in a context, thus not explicitly assessing the procedural skill or fluency. There are not items on the assessment, which are just procedural skill. Items almost always have a context or model within the item. Sixth grade benchmark assessments have over the required 20% of the total score points. 22% (11 out of 50) total score points require students to demonstrate a knowledge of the skills and procedures on the sixth grade assessment. Item 7 on the sixth grade assessment requires students to choose the correct expression, which assesses standard 6.EE.A.2, which is a procedural skill.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES
	 4c) For Applications K-5: At least 20% of the total score-points on the assessment(s) for each grade explicitly assess solving single- or multi-step word problems. 6-8: At least 25% of the total score points on the assessment(s) for each grade explicitly assess solving single- and multi-step word problems and simple models. High School: At least 30% of the total score-points on the assessment(s) for each high school course explicitly assess single- and multi-step word problems, simple models, and substantial modeling/application problems. 	No	Less than 25% of the total score points on the sixth-grade benchmark assessments assess solving single-and multi-step word problems and simple models. 11 out of 50 (22%) total score points require application on the sixth grade assessment. Item 30 on the sixth grade assessment assesses standard 6.EE.B.5. It is given in terms of a context by giving a situation for the inequality; however, it is not needed for the problem. Therefore, this is not application. The seventh grade assessment did meet the requirement of having 25% or more total score points with 14 out of 50 (28%) items having application. Item 1 on the Short Answer, which assesses standard 7.NS.A.3, is an example of application where students are required to use the information given to find the height of a plant after a certain amount of days. It should be noted that there are a number of items on the assessments that have real-world connections but are not needed to actually solve the problems.
SECTION II: ADDITIONAL INDICATO	ORS OF QUALITY		
5. Practice-Content Connections. Each grade/course's assessments include items that meaningfully connect the Standards for Mathematical Content and Standards for Mathematical Practice. However, not all items need to align to a Standard for Mathematical Practice, and there is no requirement to have an equal balance among the Standards for Mathematical Practice in any set of items or test forms.		Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.
6. Assessing Supporting Content. Supporting content and major work are not always be assessed together and not always assessed separately. There exists Items and/or sets of items assessing supporting content that enhance focus and coherence simultaneously by engaging students in the major work of the grade or course.		Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.
7. Calling for Variety in Item Type and Student Work. Assessments include a variety of item types (e.g., multiple choice, multiple select, numeric response, constructed response) that require a variety in what students produce. For example, items require students to produce answers and solutions, but also, in a grade-appropriate way, arguments and explanations (including items that explicitly assess expressing and/or communicating mathematical reasoning), diagrams, mathematical models,		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
etc.			
8. Constructing Forms Without Cueing Solution Processes. Item sequences do not cue the student to use a certain solution process during problem solving and assessments include problems requiring different types of solution processes within the same section.		Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.
9. Quality Materials. The assessment items, answer keys, and documentation are free from mathematical errors.		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 – 4 and a "Yes" for all additional indicators 5 – 11.

Tier 2 ratings receive a "Yes" in Column 1 for all non-negotiable criteria (Criteria 1-4), but at least one "No" for additional indicators 5-9.

Tier 3 ratings receive a "No" in Column 1 for at least one criteria in Section I.

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. Alignment of Test Items	No	Less than 90% of the test items exhibited alignment to the full intent of the LSSM for sixth and seventh grade benchmark assessments. Items do adhere to content limitations of the grades and the correct number systems of the grades.
	2. Focus on Major Work	Yes	At least 65% of the total score points is Major Work of the sixth, seventh, and eighth grade.
	3. Focus	No	There are items that are included on the assessment which are beyond the scope of LSSM of sixth and seventh grades.
	4. Rigor and Balance	No	While conceptual understanding had over 20% of the total-score points on the assessments, procedural skill and fluency along with application were less than the required percentages on the sixth and seventh grade benchmark assessments.
	5. Practice-Content Connections	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.
II. Additional Indicators of Quality	6. Assessing Supporting Content	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.
II: Additional Indicators of Quality	7. Calling for Variety in Item Type and Student Work	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.
	8. Constructing Forms Without Cueing Solution Processes	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	
	9. Quality Materials	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.	
FINAL DECISION FOR THIS MATERIAL: <u>Tier III, Not representing quality</u>				

Appendix I.

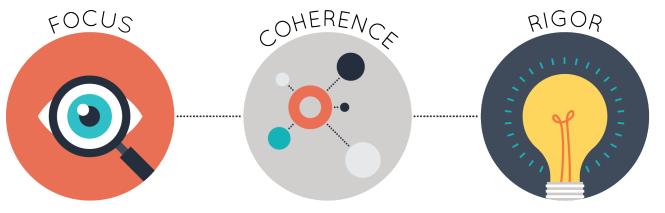
Publisher Response



Assessment Evaluation Tool for Alignment in Mathematics Grades K – HS (AET)



Strong mathematics instruction contains the following elements:



Focus strongly where the standards focus.

Think across grades, and link to major topics within grades. In major topics, pursue conceptual understanding, procedural skill and fluency, and application with equal intensity.

Title: CASE Benchmark Assessments

Publisher: TE21, Inc. Copyright: 2016

Overall Rating: <u>Tier III, Not representing quality</u>
Tier I, Tier II, Tier III Elements of this review:

STRONG	WEAK
2. Focus on Major Work (Non-Negotiable)	1. Alignment of Test Items (Non-Negotiable)
	3. Focus (Non-Negotiable)
	4. Rigor and Balance (Non-Negotiable)

Grades: 6-7

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. In Section II, review each indicator individually.

Tier 1 ratings receive a "Yes" in Column 1 for Criteria 1 - 9.

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

Tier 3 ratings receive a "No" in Column 1 in Section I.

^{*} The criteria in Section I apply to fixed form or CAT assessments, whether summative assessments or a set of interim/benchmark assessments. Item banks also should reflect the full intent of the indicators.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES	PUBLISHER RESPONSE	
SECTION I: NON-NEGOTIABLE CRIT	SECTION I: NON-NEGOTIABLE CRITERIA: Submissions must meet all non-negotiable criteria in order for the review to continue.				
Non-Negotiable 1. ALIGNMENT OF TEST ITEMS: Test items and/or sets of items elicit direct, observable evidence of the degree to which a student can independently demonstrate the targeted Standard(s) Yes No	Ta) 90% of items and/or sets of items exhibit alignment to the full intent of the LSSM for that grade/course.	No No	The sixth grade assessment has an 86% alignment between its items and corresponding standards. Seven items do not address the full intent of the standard linked to the item on the answer key. For example, Item 5 is linked to 6.EE.B8, which calls for inequalities to be graphed on a number line with infinitely many solutions; however, this solution is a finite set of minutes. Another example is found in Item 16, which is linked to 6.SP.A.3. It calls for a single number to be a measure of center or variation; however, this item simply requires students to find the difference in attendance values from year to year. Lastly, short response Item 2 (labeled #87 on the answer key) does not address the full intent of 6.NS.A.1, which requires division of fractions to solve problems. This item gives a context and a model, which eliminates the need for the algorithm because students can simply interpret the model for the solution. Requiring the answer in decimal form is not part of 6.NS.A.1. The seventh grade assessment has an 86% alignment between its items and corresponding standards. Seven items do not address the full intent of the standard linked to the item on the answer key. Three items, 34, 37, and 2 (the last of which is mislabeled as 87 on the answer key) assess sixth and fifth grade standards (5.NF.B.7b or 6.NS.A.1, 6.RP.A.3, and 5.NF.B.4a or 5.NF.B.6, respectively). Another three items, 13, 27, and 37 require students to solve real-world problems with whole numbers and percents. These three items are more	Thank you for the comments regarding the 8th grade assessment, which the reviewer found to have a 90% alignment to the LSSM standards. We believe that this indicator is complicated to assess with respect to the unique way in which TE21 operates. Our company does not create "off the shelf" assessments for clients. As part of that model, we do not maintain a database of items that can be chosen for a benchmark and therefore are unable to provide all of our items to reviewers. This is not to say that we do not have a multitude of items, but that assessments are not created by generically "clicking buttons" and generically selecting items from a data bank. Each assessment is custom-designed by content experts to match the length, design, curriculum balance, and difficulty of the state assessments for a given grade and course as defined by the LEAP blueprints provided by the LA Department of Education. In addition, the assessments are collaboratively designed with the client to match the pacing of the district, which helps ensure validity as the content assessed matches the content that was taught. As a result of this design process and the inherent constraints in building an appropriate assessment, not every component of every standard is assessed on every benchmark. Rather, all standards and subparts would be addressed at appropriate times during the school year in accordance with the client's pacing to ensure validity of the assessments. To address specific concerns, we offer the following: On the 6th grade assessment, item #5 asks students to represent a time constraint using the context of minutes within two hours. The standard 6.EE.B.8 specifically calls for representing constraints or conditions in real-	
			closely aligned with standard 7.RP.A.3. The	world problems. This finite set of minutes	

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES	PUBLISHER RESPONSE
			final item on the seventh grade assessment, labeled number 5 on the test but listed as number 90 on the answer key, is also listed as assessing 7.EE.B.3. In this item, only positive quantities are involved. It is important to note that some of the standards listed on the sixth grade answer key do not exist: 6.SP.A.4 should be 6.SP.B.4 and 6.SP.A.5 should be 6.SP.B.5. Also on the sixth	upholds the first part of the standard appropriately in this context. For #16, students are required to use the range of attendance for each sports team to compare the variation in attendance within one year, but it is not done from year to year. As the reviewer states, the standard requires a measure of center or variation, in this case range, and the item in question specifically asks for the "variation in attendance." We would ask that you confirm that the item reviewed was the item referenced by the reviewer as we are confused as to the issue taken with the alignment. With respect to constructed response item #2, the intent of was not to assess 6.NS.A.1 in its entirety. As referenced above, our assessments are designed to be administered throughout a course as a series, ensuring that all standards are addressed fully by the end of the year. We understand the issue taken with the model being included. We have versions of the item (and others) both with and without the model as requested by various clients. Additionally, students may answer with a fraction or decimal, as the scoring system we use will accept all equivalent versions of student responses. On the 7th grade assessment, item 34 is labeled as 7.NS.A.3, which calls for students to solve real-world and mathematical problems involving the four operations with rational numbers. In this item, students are asked to divide a whole number by a fraction within a context, which we feel meets the standard.
			grade assessment, there are several problems that do not assess the corresponding standard listed on the answer key including Item 23	While these three are not the most challenging items on the assessment nor do they assess the whole of the standard, as mentioned
			which assesses 6.NS.C.8, not 6.G.A.3 because students are not drawing polygons in the coordinate plane but are solving real-world problems and finding distances between points in the coordinate plane.	previously the assessment is meant to be one of several administered during a course which would ultimately assess all components of all standards. As such, the provided benchmark was designed to match the length, difficulty,

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES	PUBLISHER RESPONSE
CRITERIA	INDICATORS OF SUPERIOR QUALITY			and balance of the LEAP blueprints from the LA Department of Education. Therefore those items are purposefully easier to provide a balance of low and high DOKs and difficulty levels. Number 37 is marked as 7.EE.B.3 which asks students to convert between forms of rational numbers and does not mention the word equation at all, but rather says operations. In this item, students are asked to compare percents, decimals and fractions, to find the greatest value. Again, this item was not meant to assess the whole standard, but does assess part of the standard. And constructed response #2 is coded as 7.RP.A.1 and asks to find an amount of chocolate candy in a party snack using ratios written as fractions. As such, we feel this item is also aligned to the standard listed, but is not meant to represent the standard in full. The item is not mis-labeled, but the key is reflective of the
				internal scoring processes used. It is labeled for student/teacher use on the assessment. With regard to the criticism of items 13, 17, 23, and constructed response #5 not meeting 7.EE.B.3 because no equations are required, we argue that the standard does not state equations be written formally, in fact, it does not mention equations within the standard (rather, solving multi-step real-life and mathematical problems). The standard does mention expressions and equations in the heading. The reviewer's description of these items as requiring students to solve real-world problems with whole numbers and percents seems to match perfectly with the wording of the standard and, as such we are unclear about how these items do not meet this standard as whole numbers and percents are used as an example of this standard in the LSSM documents. Thank you for the positive feedback regarding the 8th grade assessment. On the 8th grade

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES	PUBLISHER RESPONSE
				assessment, there was a concern over assessing 8.F.A.2 with proportional relationships and also requiring real-world context for 8.EE.B.5, but neither standard has specific wording to support these limitations. As previously mentioned, these are items curated for this particular test. As noted elsewhere, our benchmarks are custom-designed, and any items can be changed as the client prefers. We have at our disposal items addressing this standard which are proportional or otherwise linear (for 8.F.A.2) and some which can be assessed within and without a context (8.EE.B.5). We typically recommend a mixture of these elements when assessing these standards. Also, concerning #42, students are given the circumference of the Earth in scientific notation and asked to estimate the circumference of the Sun. We are unclear how this items does not assess estimation within this standard. As a side note, we apologize for any errors in the labeling of standards with respect to the sub-domain. We have taken efforts to ensure these subdomains are labelled appropriately in the future. We would like to say that we feel 6th grade item #23 does assess 6.G.A.3 because the standard asks that students both "use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate" and apply these techniques in the context of solving real-world and mathematical problems".
	1b) Items and/or sets of items adhere to content limitations outlined in the LSSM and the Assessment Guides. All limitations for all grades K-HS provided in footnotes of the LSSM are also followed.	Yes	Items adhere to the content limitations outlined in the LSSM and the Assessment Guides. On the sixth grade assessment, an example of this can be found in Item 39. It assesses standard 6.RP.A.3 and does not use a complex fraction. Another example is on the seventh grade assessment with Item 18 which	Thank you for the postiive feedback. We appreciate your time and consideration.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES	PUBLISHER RESPONSE
			references standard 7.G.B.6. The standard limits pyramids to surface area only and that is all this item addresses. An additional limitation for seventh grade is for coordinates to be confined to the first quadrant. Item 1 asks students to identify the proportional relationship between x and y coordinates in the first quadrant. Lastly, the eighth grade assessment has appropriate functions using an equation and a table as seen in Item 14 (8.F.A.2).	
	1c) Items and/or sets of items use the number system appropriate to the grade/course. For example, in grade 3 there are some items involving fractions greater than 1; in the middle grades, arithmetic and algebra use the rational number system, not just the integers.	Yes	Items use the number system appropriate for sixth, seventh, and eighth grade mathematics. On the sixth grade assessment, there are whole and rational numbers used for computations and/or integers used when identifying on a number line in at least 15 of the items. The seventh grade assessment includes rational numbers for computations. The eighth grade assessment includes rational and irrational numbers throughout as well as numbers expressed in scientific notation.	Thank you for the postiive feedback. We appreciate your time and consideration.
Non-Negotiable 2. FOCUS ON MAJOR WORK: The large majority of points in each grade/course are devoted to the major work of the grade. Yes No	 2a) Each grade/course's assessments meet or exceed the following score-point distributions for the major work of the grade. 85% of the total points in grades K-2 align exclusively to the major work of the grade. 75% of the total points in grades 3-5 align exclusively to the major work of the grade. 65% of the total points in grades 6-12 align exclusively to the major work of the grade. 	Yes	All grade level benchmark assessments exceed the 65% of the total points in sixth, seventh, and eighth grade mathematics which align exclusively to the major work of these courses. Using the alignment document given from the publisher, 34 out of 50 total points (68%) on the sixth grade assessment is major work of the grade. An example can be found in Item 3 where students are selecting the equivalent expressions (6.EE.A.3). On the seventh grade assessment, 35 out of 50 total points (70%) is major work of the grade. Item 27 has students find a unit rate in context of the problem (7.EE.B.3). Lastly, 37 out of 50 total points (74%) on the	Thank you for the postiive feedback. We appreciate your time and consideration.
			eighth grade assessment is major work of the grade. On this assessment, Item 14 gives two different functions given in two different	

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES	PUBLISHER RESPONSE
			representations, an equation and a table and has students answer a question comparing the two (8.F.A.2).	
Non-Negotiable 3. FOCUS: No item assesses topics directly or indirectly before they are introduced in the LSSM. Yes No	3a) 100% of items on an assessment address only knowledge of topics found in the LSSM in the specified grade/course.	No	Less than 100% of the items on the sixth, and seventh grade benchmark assessments address only knowledge of topics found in the LSSM. Item 2 on the short answer of the seventh grade assessment is assessing a fifth grade standard (5.NF.B.6).	As the 6 th grade benchmark was not mentioned by the reviewer, we assume that 100% of the items address only 6 th grade knowledge. Item 2 for 7 th grade was previosuly mentioned. We respectfully disagree with the classification that it is misaligned. Please see the explanation above. The 8 th grade assessment should not have included an item with function notation. We have made a note of this feedback and will be sure not to use function notation in 8 th grade assessements.
Non-Negotiable 4. RIGOR AND BALANCE: Each grade/course's assessments 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	4a) For Conceptual Understanding: K—High School: At least 20% of the total score-points on the assessment(s) for each grade or course explicitly require students to demonstrate conceptual understanding especially where called for in specific content standards.	Yes	At least 20% of the total score points on the sixth, seventh, and eighth grade benchmark assessments explicitly require students to demonstrate conceptual understanding. Conceptual understanding items comprise 56% of the sixth grade assessment, 58% of the seventh grade assessment, and 70% of the eighth grade assessment. On the sixth grade assessment, Item 9 has students select which statement is true about the expression given, which requires students to have a conceptual understanding of the standard 6.EE.A.2. Item 42 is an example from the seventh grade assessment, which requires students to have a conceptual understanding of 7.SP.A.1. Students are required to understand which population of student should be selected for a survey. Lastly, Item 16 on the eighth grade assessment requires students to understand two linear functions, one given in words and one given via	Thank you for the postiive feedback. We appreciate your time and consideration. We would like to note that the reviewer's comments highlight the heavy skew our benchmarks have to conceptual understanding. While we understand that a balanced asessment requires items addressing procedural skill and application as well as conceptual understanding, we posit that our skew to the conceptional is appropriate and intentional. When students have a strong conceptual understanding of the material, they are more likely to be able to apply that understanding. And when they can apply the understanding, they necessarily must have a certain level of procedural skill. Therefore, our primary focus is on assessing students' conceptual understanding, often within real-world applications. The categories are not mutually exclusive in many cases, and

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES	PUBLISHER RESPONSE
	4b) For Procedural Skill and Fluency:	No	a graph, and compare the rates of the two. This assesses standard 8.F.A.2. Less than 20% of the total score points on the	therefore it can be complicated to determine the categorical placement of item for external purposes. We are pleased that the assessments more than meet the conceptual understanding indicator, but also recognize that it resulted in a lower than required number of items categorized as assessing procedural skill and application skill. Research suggests that teachers struggle more
	K—High School: At least 20% of the total score-points on the assessment(s) for each grade or course explicitly require students to demonstrate procedural skill and fluency, especially where called for in specific content standards.		seventh grade benchmark assessment require students to demonstrate procedural skill or fluency. 4 out of 50 total score points (8%) on the seventh grade benchmark assessment requires students to demonstrate procedural skill or fluency. Seventh grade has one fluency standard, 7.EE.B.4. Items 7 and 9 are listed by the publisher as assessing this standard. However, both have been put in a context, thus not explicitly assessing the procedural skill or fluency. There are not items on the assessment, which are just procedural skill. Items almost always have a context or model within the item. Sixth grade and eighth grade benchmark assessments have over the required 20% of the total score points. 22% (11 out of 50) total score points require students to demonstrate a knowledge of the skills and procedures on the sixth grade assessment. Item 7 on the sixth grade assessment requires students to choose the correct expression, which assesses standard 6.EE.A.2, which is a procedural skill.	with writing questions requiring applications and contextual elements, therefore we tend to write various levels of context in items for all standards. Additionally, as mentioned above, our benchmarks are designed using the LEAP blueprints and are therefore balanced with respect to difficulty, thinking skill, and depth of knowledge according to the requirements of the grade/course appropriate blueprint, which may not match the criteria required in this rubric with respect to procedural skill assessment. We are able to remove context from items as requested by clients. However we feel that students benefit from exposure to contextual items, even where fluency is involved. These contexts may be intentionally thin in comparison to other application items. Including very thin context and no context items, we feel that 8 out of 50 items are procedural at their core. Thank you for your positive feedback regarding 6th and 8th grade.
	4c) For Applications	No	Less than 25% of the total score points on the	Thank you for your positive feedback regarding

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES	PUBLISHER RESPONSE
	 K-5: At least 20% of the total score-points on the assessment(s) for each grade explicitly assess solving single- or multi-step word problems. 6-8: At least 25% of the total score points on the assessment(s) for each grade explicitly assess solving single- and multi-step word problems and simple models. High School: At least 30% of the total score-points on the assessment(s) for each high school course explicitly assess single- and multi-step word problems, simple models, and substantial modeling/application problems. 		sixth grade benchmark assessments assess solving single-and multi-step word problems and simple models. 11 out of 50 (22%) total score points require application on the sixth grade assessment. Item 30 on the sixth grade assessment assesses standard 6.EE.B.5. It is given in terms of a context by giving a situation for the inequality; however, it is not needed for the problem. Therefore, this is not application. The seventh grade assessment did meet the requirement of having 25% or more total score points with 14 out of 50 (28%) items having application. Item 1 on the Short Answer, which assesses standard 7.NS.A.3, is an example of application where students are required to use the information given to find the height of a plant after a certain amount of days. It should be noted that there are a number of items on the assessments that have real-world connections but are not needed to actually solve the problems.	the 7 th grade assessment with respect to applications. As desribed above, we offer a variety of contextual, thinly contexual, and noncontexutal items. We also strive to avoid testing bias caused by putting too much empahsis on contexts that may not be familiar to all students. On the 6 th and 8 th grade assessments, context plays a role in 28 out of 50 and 12 out of 50 items, respectively. The count of these items do not include the examples given, which were not intended as examples of application.
SECTION II: ADDITIONAL INDICATO	PRS OF QUALITY			
5. Practice-Content Connections. Each grade/course's assessments include items that meaningfully connect the Standards for Mathematical Content and Standards for Mathematical Practice. However, not all items need to align to a Standard for Mathematical Practice, and there is no requirement to have an equal balance among the Standards for Mathematical Practice in any set of items or test forms.		Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.	
together and not always assessed sepa	6. Assessing Supporting Content. Supporting content and major work are not always be assessed together and not always assessed separately. There exists Items and/or sets of items assessing supporting content that enhance focus and coherence simultaneously by engaging students in the		This section was not evaluated because the non-negotiable criteria were not met.	

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES	PUBLISHER RESPONSE
major work of the grade or course.				
(e.g., multiple choice, multiple select, n in what students produce. For example but also, in a grade-appropriate way, a	Student Work. Assessments include a variety of item types numeric response, constructed response) that require a variety e, items require students to produce answers and solutions, rguments and explanations (including items that explicitly ng mathematical reasoning), diagrams, mathematical models,	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.	
8. Constructing Forms Without Cueing Solution Processes. Item sequences do not cue the student to use a certain solution process during problem solving and assessments include problems requiring different types of solution processes within the same section.		Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.	
9. Quality Materials. The assessment it mathematical errors.	tems, answer keys, and documentation are free from	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.	
	n 1 for Criteria 1 – 4 and a "Yes" for all additional indicators 5 – 1			

Tier 2 ratings receive a "Yes" in Column 1 for all non-negotiable criteria (Criteria 1-4), but at least one "No" for additional indicators 5-9.

Tier 3 ratings receive a "No" in Column 1 for at least one criteria in Section I.

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. Alignment of Test Items	No	Less than 90% of the test items exhibited alignment to the full intent of the LSSM for sixth and seventh grade benchmark assessments. Items do adhere to content limitations of the grades and the correct number systems of the grades.	While the 8 th grade assessment was reviewed as being 90% aligned, we understand the reviewer's reservations about the other two. We have responded above with comments explaining the rationale for item alignment and benchmark design. Also as noted above, the provided benchmark was one of several that could be designed and administered as part of a comprehensive benchmark program that is collaboratively designed by TE21 and the client.
	2. Focus on Major Work	Yes	At least 65% of the total score points is Major Work of the sixth, seventh, and eighth grade.	
	3. Focus	No	There are items that are included on the assessment which are beyond the scope of LSSM of sixth and seventh grades.	As the reviewer did not comment on any issues with the 6 th grade assessment, we understand it to mean it met the criteria. We respectfully disagree with the issue taken with the single item referenced on the 7 th grade benchmark, as explained above. The 8 th grade assessment item referenced as being outside the scope of

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (YES/NO)	JUSTIFICATION/COMMENTS WITH EXAMPLES	PUBLISHER RESPONSE	
				the grade was noted, and as all benchmarks are custom-developed in collaboration with the client, the item would be replaced.	
	4. Rigor and Balance	No	While conceptual understanding had over 20% of the total-score points on the assessments, procedural skill and fluency along with application were less than the required percentages on the sixth, seventh, and eighth grade benchmark assessments.	We appreciate the reviewer's comments regarding conceptual understanding. All benchmarks are designed using the LEAP blueprints provided by the LA Department of Education. Our benchmark design rationale is explained in more detail above.	
	5. Practice-Content Connections	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.		
	6. Assessing Supporting Content	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.		
II: Additional Indicators of Quality	7. Calling for Variety in Item Type and Student Work	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.		
	8. Constructing Forms Without Cueing Solution Processes	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.		
	9. Quality Materials	Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.		
FINAL DECISION FOR THIS MATERIAL:	INAL DECISION FOR THIS MATERIAL: Tier III, Not representing quality				

Standard	Description	Sample Item (these samples are not exhaustive of the items we have)
		Jonathan has $\frac{3}{4}$ hour left to complete his homework. He has 30 problems left to complete.
		How much time, in minutes, should Jonathan spend on each problem?
6.NS.A.1	Assessed without using models,	A $\frac{2}{3}$ minute
0.113.71.1	requiring the use of an algorithm.	B $1\frac{1}{2}$ minutes
		$\mathbf{C} = 2\frac{1}{2}$ minutes
		D $3\frac{2}{3}$ minutes
		Roberta has \$50 in her purse. The money she has left over after buying two boxes of cookies is given by the equation $50 - x = 38$, where x represents the cost of two boxes of cookies.
	The context is	What is the cost of two boxes of cookies?
6 FF B 5	essential to solving the	A \$12
	problem.	B \$16
		C \$24
		D \$38

		The table shows Maver	rick's test so	ores on his firs	t four tests.		
		Test 1	Test 2	Test 3	Test 4	Test 5	
		80	92	88	86	?	
6.SP.A.3	A single number to be a measure of center or	What grade does Mave an 86?	erick need to	get on Test 5 f	for the mean o	of his test score	es to be
	variation.	A 01					
		B 82					
		C 83					
		D 84					
		Michael has 105 credits at a favorite video game with his		ants to purchase a	drink and play hi	is	
	Solving real world problems	If the drink costs 63 credits many times can Michael play			5 credits each tim	e, how	
7.NS.A.3	with a variety of the four	A 42 times					
	operations, and	B 30 times					
	more rigor.	C 18 times					
		D 12 times					

7.EE.B.3	Using positive and negative	Angel has \$382.45 in his checking account and \$450 in his savings account. He writes a check for \$400. Angel's bank automatically takes money from his savings to cover the amount of a check if the money in the checking account is not sufficient. Unfortunately for Angel, the bank also withdraws \$25 from his savings account for this service. Once the check has cleared, how much money does Angel have in his savings account?			
	quantities.	A \$17.55			
		B \$42.55			
		C \$407.45			
		D \$442.55			

8.EE.B.5	Assessing real world proportional relationships.	In the country of Lao, the distance from Pak Beng to Luang Prabang is 325 kilometers. It takes a riverboat about 7.5 hours to make the trip. The graph shows the distance versus time for a motorboat making the same trip. 325 326 327 328 329 329 320 320 321 320 321 322 322 323 325 325 326 327 327 328 329 329 320 320 320 320 320 320 320 320 320 320
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		Nate and Lauren each construct a line on the coordinate plane. Nate's line is modeled by the equation $y = -3x - 10$. Lauren's line is modeled by the points in the table.
8.F.A.2	Comparing functions that are not proportional.	Point Coordinates 1 (-3, 2) 2 (-1, -6) 3 (1, -14) Which statement regarding Nate's and Lauren's lines is true? A The slope of Lauren's line is steeper than the slope of Nate's line. B The slope of Nate's line is steeper than the slope of Lauren's line. C The y-intercept of Lauren's line is greater than the y-intercept of Nate's line. D The y-intercept of Nate's line is greater than the y-intercept of Lauren's line.
8.F.B.4	The context is essential to solving the problem.	Fernando has a water tank that holds 160 gallons. There are 40 gallons of water in the tank. Fernando opens a tap to fill the tank, and the tap fills 7 gallons of water into the tank every 10 minutes. Which function shows the relationship between the total amount of water, A , in the tank t minutes after the tap is opened and until the tank is <i>completely</i> filled? A $A = 40t + \frac{7}{10}$ B $A = 40 + \frac{7}{10}t$ C $A = 40t + \frac{10}{7}$ D $A = 40 + \frac{10}{7}t$

Appendix II.

Public Comments

There were no public comments submitted.