Assessment Materials Evaluation - Student Standards Review

Louisiana educators engaged in a professional review of the state's academic standards for English language arts (ELA) and mathematics to ensure they continue to maintain strong expectations for teaching and learning aligned with college and workplace demands. The new ELA and math standards will be effective beginning with the 2016-2017 school year. As part of the Louisiana Department of Education's support for a seamless transition to these new standards, the LDOE identified the major changes of the standards and their potential impact upon criteria used to review instructional materials.

Title: **MAP Assessments** Grade: **K-5**

Publisher: **Northwest Evaluation Association (NWEA)** Copyright: **2014**

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

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

- Include standards for money in grades K, 1, and 3 to ensure connections that provide smooth transitions from one grade to the next
- Provide developmentally appropriate content for all grades or courses while maintaining high expectations:
    - Additive area is moved to grade 4 from grade 3
    - The Statistics - Conditional Probability and the Rules of Probability (S-CP) domain is moved from Algebra II to Geometry
    - The standards provide extra clarity around the distinction between Algebra I and II

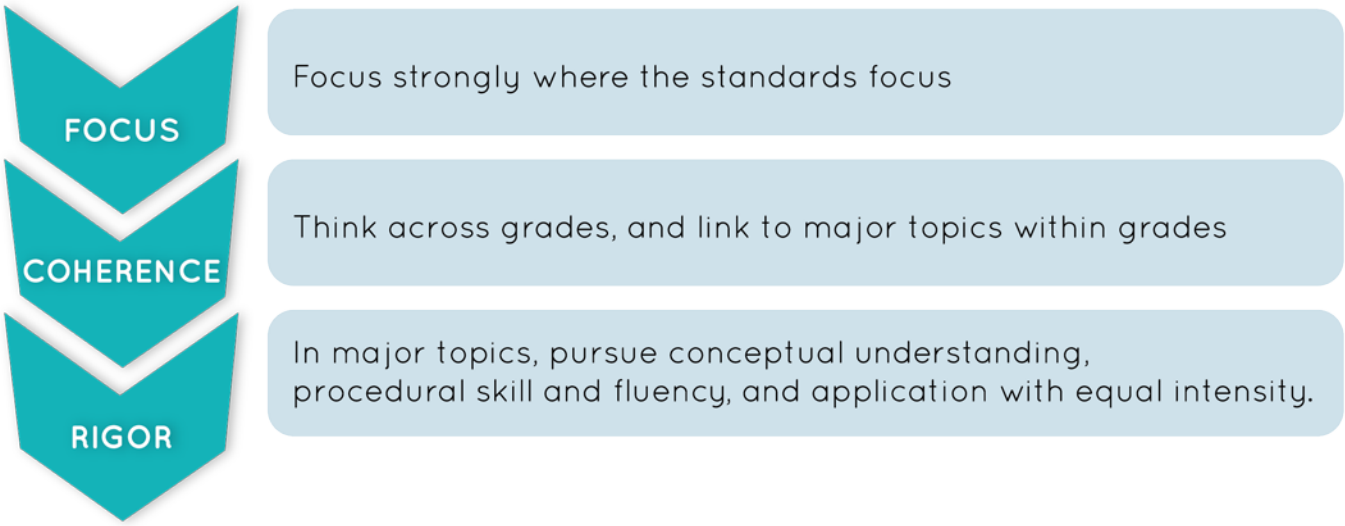
The following two indicators may be impacted:

- Focus on Major Work (Non-Negotiable)
- Focus in K-8 (Non-Negotiable)

This review remains a Tier 3 rating. As a result of these changes, the following chart identifies the potential impact on the current review. The LDOE recommends that district curriculum staff, principals, and teachers take these findings into consideration when using these benchmark assessments.

Criteria	Currently in the Rubric	Next Steps for Educators
Focus on Major Work (Non-Negotiable)	This program currently is reviewed as "No" for this criterion because several standards are only assessed in one question, which does not show a level of mastery for that standard. Many of the standards are not assessed at all.	Since these materials received a "No" for this indicator, the current weakness will likely remain and should be addressed by adjusting or supplementing with stronger programs.
Focus in K-8 (Non-Negotiable)	This program currently is reviewed as "No" for this criterion because progression within the assessment was based on the student's ability level; therefore, the student may or may not be working on grade level material.	Since these materials received a "No" for this indicator, the current weakness will likely remain and should be addressed by adjusting or supplementing with stronger programs.

Strong mathematics instruction contains the following elements:



Title: **MAP Assessments** Grade: **K-2**

Publisher: **Northwest Evaluation Association (NWEA)** Copyright: **2014**

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

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

STRONG	WEAK
	1. Alignment of Test Items (Non-Negotiable)
	2. Focus on Major Work (Non-Negotiable)
	3. Focus in K-8 (Non-Negotiable)

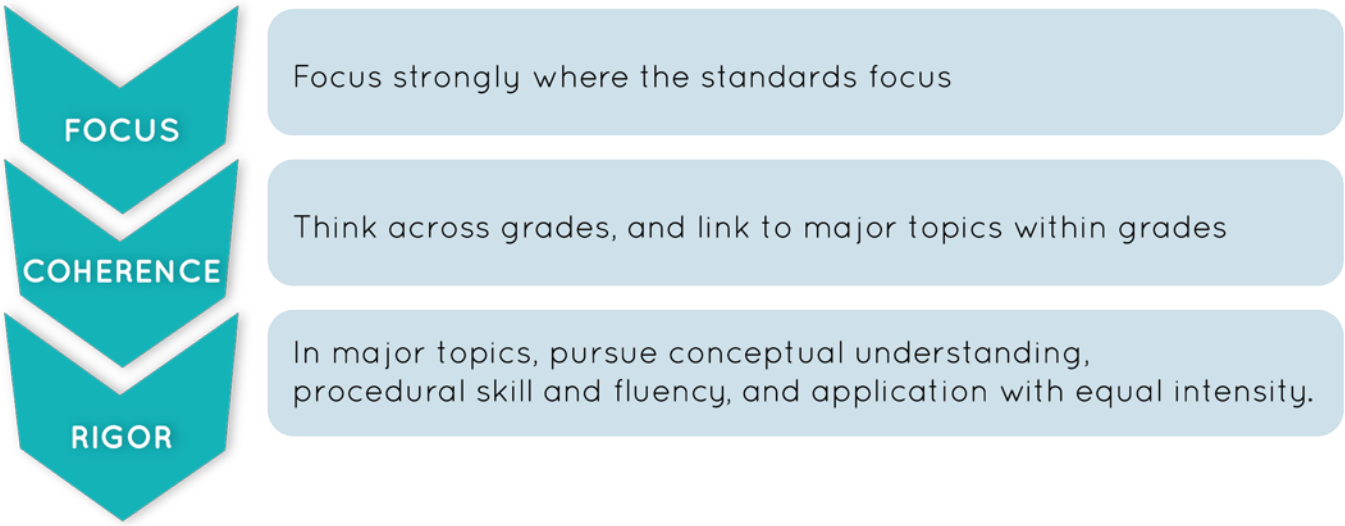
Each set of submitted materials was evaluated for alignment with the standards beginning with a review of the indicators for the non-negotiable criteria. If those criteria were met, a review of the other criteria ensued.

Tier 1 ratings receive a "Yes" in Column 1 for Criteria 1 – 11.
Tier 2 ratings receive a "Yes" in Column 1 for all non-negotiable criteria (Criteria 1 – 3), a "Yes" in Column 1 for Criteria 4 in Section II, but at least one "No" in Section III.
Tier 3 ratings receive a "No" in Column 1 in Section I or Section II.

Click below for complete grade-level reviews:

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

Strong mathematics instruction contains the following elements:



Title: **MAP Assessments** Grade: **K-2**

Publisher: **Northwest Evaluation Association (NWEA)** Copyright: **2014**

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

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

STRONG	WEAK
	1. Alignment of Test Items (Non-Negotiable)
	2. Focus on Major Work (Non-Negotiable)
	3. Focus in K-8 (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, begin by reviewing the indicators in Column 2 for each criterion. If there is a "Yes" for all 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. For Section III, review each indicator individually.

Tier 1 ratings receive a "Yes" in Column 1 for Criteria 1 – 11.
Tier 2 ratings receive a "Yes" in Column 1 for all non-negotiable criteria (Criteria 1 – 3), a "Yes" in Column 1 for Criteria 4 in Section II, but at least one "No" in Section III.
Tier 3 ratings receive a "No" in Column 1 in Section I or Section II.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/COMMENTS WITH EXAMPLES
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: 90% of test items and/or sets of items exhibit alignment to the full intent of the CCSSM for that grade or course[1] [2] by eliciting direct, observable evidence of the degree to which a student can independently demonstrate the targeted standard(s). *This criterion applies to fixed form or CAT assessments, whether summative assessments or a set of interim/benchmark assessments. All items and/or sets of items should reflect the metric.* ☐ Yes ☒ No	**1a)** Items and/or sets of items directly reflect the language of individual standards. • For example, 6.EE.3 puts the emphasis on applying properties of operations and generating equivalent expressions, not just mechanically simplifying. • Most items aligned to a single standard should assess the central concern of the standard in question.	**No**	There is no evidence of conceptual understanding being assessed in these items. All questions are multiple choice, and there is no application present.
	1b) Items and/or sets of items align with PARCC's evidence tables for grades 3-8 and adhere to content limitations outlined in that document. All limitations for all grade K-HS provided in footnotes of the CCSSM are also followed. For example, in Grade 3 denominators for fractions are limited to 2, 3, 4, 6 and 8.	**N/A**	
	1c) The overall set of items reflect the progressions in the Standards. • For example, multiplication and division items in grade 3 emphasize equal groups, with no rate problems (grade 6 in CCSS).	**No**	Not all standards that are addressed are addressed equally throughout the test, and some of the additional standards are assessed more than the major or supporting standards. (i.e., K.G.1). Several of the standards are only assessed in one question, which does not show a level of mastery of that standard. Many of the standards are also not assessed at all (major standards: K.CC.4, K.OA.3, K.OA.4, 1.OA.4, 1.NBT.5, 1.MD.1, 2.NBT.6, 2.MD.2, 2.MD.6, supporting standards: K.G.5, additional standards: K.G.3, and 2.G.2).
	1d) Within the complete set of items, there are items which assess all levels of the content hierarchy, including cluster headings.	**No**	Within the complete set of items, items do not assess all levels of content hierarchy as indicated in the K-2 CCSS. There are many individual standards that are not addressed as well as 13 3rd grade standards that are assessed either once or multiple times. No questions were provided for the following K-2 standards: major standards: K.CC.4, K.OA.3, K.OA.4, 1.OA.4, 1.NBT.5, 1.MD.1, 2.NBT.6, 2.MD.2, 2.MD.6, supporting standards: K.G.5, additional

[1] Refer also to the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013) and the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[2] See the Quality Criteria Checklist for Mathematics.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			standards: K.G.3, and 2.G.2.
	1e) Using the number system appropriate to the grade level. • 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**	The number system was used appropriately to K-2.
Non-Negotiable 2. FOCUS ON MAJOR WORK*: The large majority of points in each grade K–8 are devoted to the major work of the grade, and the majority of points in each High School course are devoted to widely applicable prerequisites.[3] *This criterion applies to fixed form or CAT assessments, whether summative assessments or a set of interim/benchmark assessments. Item banks also should reflect the proportions in the metrics.* ☐ Yes ☒ No ***As applicable to the grade level assessment being reviewed.**	**FOR GRADES K–8 ONLY** **For grades K–8**, 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 6–8 align exclusively to the major work of the grade.	**No**	50% of the total points align exclusively to the major work of grades K-2.
	FOR HIGH SCHOOL ONLY **For high school**, aligned assessments or sets of assessments **meet or exceed** the following score-point distribution: • 50% of the total points in high school align to content of Common Core State Standards identified as widely applicable prerequisites for a range of college majors, postsecondary programs, and careers.[4]	**N/A**	
Non-Negotiable 3. FOCUS IN K–8: No item assesses topics directly or	90% of items on an assessment address only knowledge of topics found in the CCSSM in the specified grade level.	**No**	82% of the items address only knowledge of topics found in the K-2 CCSSM. The remaining items addressed 3rd grade standards.

[3] Refer also to criterion #1 in K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013) and criterion #1 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[4] Refer also to page 8 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/COMMENTS WITH EXAMPLES
indirectly before they are introduced in the CCSSM.[5] *This criterion applies to fixed form or CAT assessments, whether a summative assessment or a set of interim/benchmark assessments. All Items also should reflect the metric.* ☐ Yes ☒ No	Commonly misaligned topics include, but are not limited to: • **Probability,** including chance, likely outcomes, probability models**.** (Introduced in the CCSSM in grade 7) • **Statistical distributions**, including center, variation, clumping, outliers, mean, median, mode, range, quartiles; and **statistical association or trends**, including two-way tables, bivariate measurement data, scatter plots, trend line, line of best fit, correlation. (Introduced in the CCSSM in grades 6–8; see CCSSM for specific expectations by grade level.) • **Similarity, congruence, or geometric transformations.** (Introduced in the CCSSM in grade 8) • **Symmetry** of shapes, including line/reflection symmetry, rotational symmetry. (Introduced in the CCSSM in grade 4)		
SECTION II: Balance: Submissions must meet Rigor and Balance criterion in order for the review to continue.			
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.[6] *This criterion applies to fixed form or CAT assessments, whether summative assessments or a set of interim/benchmark assessments. Item*	**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 of key mathematical concepts, especially where called for in specific content standards or cluster headings.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	4b) ***For Procedural Skill and Fluency:*** • ***K–6:*** At least 20% of the score-points on the assessment(s) for each grade explicitly assess procedural skill and fluency requirements in the Standards. • ***7–8 and High School:*** At least 20% of the score-points on the assessment(s) for each grade or course explicitly assess procedural skill and fluency/culminating standards.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.

[5] Refer also to criterion #2 in the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[6] Refer also to criterion #4 in the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013) and criterion #2 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/COMMENTS WITH EXAMPLES
banks also should reflect the proportions in the metrics. ☐ Yes ☐ No	• Grade 7: 7.EE.3, 7.EE.4, 7.NS.1 • Grade 8: 8.EE.7, 8.G.9 High School: See PARCC Model Content Frameworks, pages 46, 49, 53, 54		
	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.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	4d) *Grades 3-High School*: PARCC Type II and Type III Performance-Based Tasks [7] • At least two items on each assessment for each grade or course align with PARCC's Type II (Subclaim C) Evidence Statements. One item is a 3-point item and the second a 4-point item. A rubric for hand scoring any part of an item that cannot be machine scored is provided. At least two items on each assessment for each grade or course align with PARCC's Type III (Subclaim D) Evidence Statements. One item is a 3-point item and the second a 6-point item. A rubric for hand scoring any part of an item that cannot be machine scored is provided.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
SECTION III: ADDITIONAL INDICATORS 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		**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.

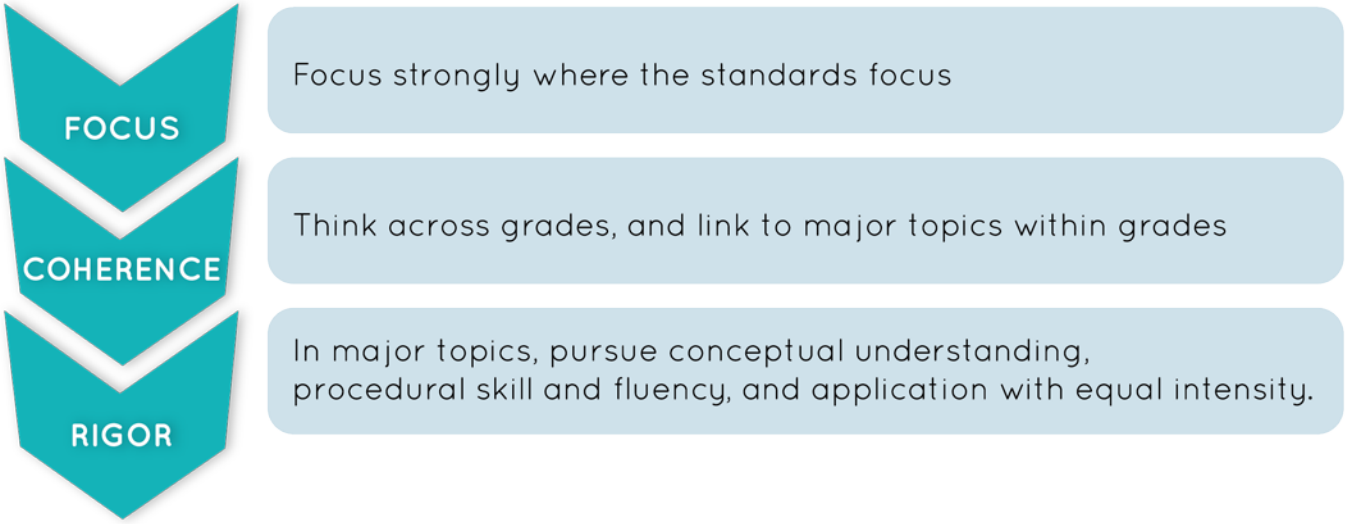
[7] See page 2 of PARCC's Evidence Tables - High Level Overview and the PBA Evidence tables for each grade. An example of a Subclaim C evidence staement is 4.C.2. An example of a Subclaim D evidence statement is 4.D.1. To view PARCC's prototype Type II and Type III items, go to http://www.parcconline.org/samples/mathematics/grade-4-mathematics.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/COMMENTS WITH EXAMPLES
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.[8]			
6. Assessing Supporting Content. Assessment of supporting content enhances focus and coherence simultaneously by engaging students in the major work of the grade or course.[9]		**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
7. Addressing Every Standard for Mathematical Practice. Every Standard for Mathematical Practice is represented on the assessment(s) for each grade or course.		**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
8. Expressing Mathematical Reasoning. There are sufficiently many points on the assessment(s) for each grade or course that explicitly assess expressing and/or communicating mathematical reasoning.		**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
9. 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.
10. Calling for Variety in Student Work. Items 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, diagrams, mathematical models, etc.[10]		**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
11. 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 – 3, a "Yes" in Column 1 for Criteria 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 – 3), a "Yes" in Column 1 for Criteria 4, but at least one "No" for additional indicators 5 – 11. ***Tier 3 ratings*** receive a "No" in Column 1 for at least criteria in Section I or Section II.			
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**	Provided content is not fully aligned with CCSS. Not all standards are addressed in the provided content, therefore progressions were hard to establish. Progressions within each standard are not fully developed and some standards address only basic concepts of the standard. All levels of content

[8] Refer also to criterion #7 in the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013) and criteria #5 High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[9] Refer also to criterion #3 in the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[10] Refer also to criterion #9 in the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013) and criteria #7 High School Publishers' Criteria for the CCSSM (Spring 2013).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			hierarchy and cluster headings are not addressed. The appropriate number system is used for the grade level.
	2. Focus on Major Work	**No**	Only 50% of the items address the major work of grades K-2.
	3. Focus in K-8	**No**	82% of the items address only knowledge of topics found in the K-2 CCSSM. The remaining items addressed 3rd grade standards.
II. Balance	4. Rigor and Balance	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
III: Additional Indicators of Quality	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.
	7. Addressing Every Standard for Mathematical Practice	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	8. Expressing Mathematical Reasoning	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	9. Constructing Forms Without Cueing Solution Processes	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	10. Calling for Variety in Student Work	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	11. Quality Materials	**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: **MAP Assessments** Grade: **2-5**

Publisher: **Northwest Evaluation Association (NWEA)** Copyright: **2014**

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

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

STRONG	WEAK
	1. Alignment of Test Items (Non-Negotiable)
	2. Focus on Major Work (Non-Negotiable)
	3. Focus in K-8 (Non-Negotiable)

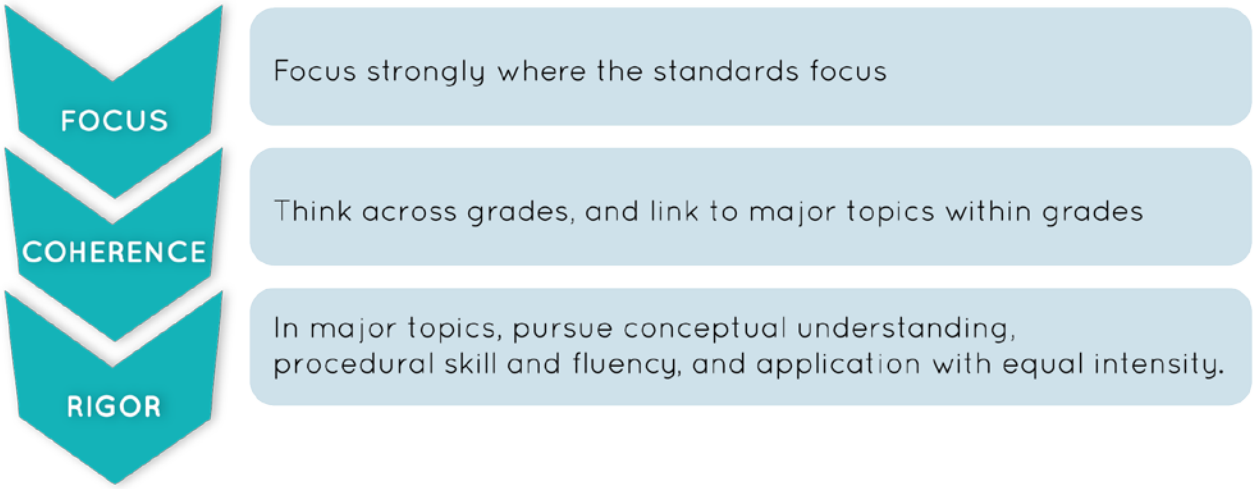
Each set of submitted materials was evaluated for alignment with the standards beginning with a review of the indicators for the non-negotiable criteria. If those criteria were met, a review of the other criteria ensued.

Tier 1 ratings receive a "Yes" in Column 1 for Criteria 1 – 11.
Tier 2 ratings receive a "Yes" in Column 1 for all non-negotiable criteria (Criteria 1 – 3), a "Yes" in Column 1 for Criteria 4 in Section II, but at least one "No" in Section III.
Tier 3 ratings receive a "No" in Column 1 in Section I or Section II.

Click below for complete grade-level reviews:

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

Strong mathematics instruction contains the following elements:



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	3. Focus in K-8 (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, begin by reviewing the indicators in Column 2 for each criterion. If there is a "Yes" for all 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. For Section III, review each indicator individually.

Tier 1 ratings receive a "Yes" in Column 1 for Criteria 1 – 11.
Tier 2 ratings receive a "Yes" in Column 1 for all non-negotiable criteria (Criteria 1 – 3), a "Yes" in Column 1 for Criteria 4 in Section II, but at least one "No" in Section III.
Tier 3 ratings receive a "No" in Column 1 in Section I or Section II.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/COMMENTS WITH EXAMPLES
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: 90% of test items and/or sets of items exhibit alignment to the full intent of the CCSSM for that grade or course[11] [12] by eliciting direct, observable evidence of the degree to which a student can independently demonstrate the targeted standard(s). *This criterion applies to fixed form or CAT assessments, whether summative assessments or a set of interim/benchmark assessments. All items and/or sets of items should reflect the metric.* ☐ Yes ☒ No	**1a)** Items and/or sets of items directly reflect the language of individual standards. • For example, 6.EE.3 puts the emphasis on applying properties of operations and generating equivalent expressions, not just mechanically simplifying. • Most items aligned to a single standard should assess the central concern of the standard in question.	**No**	Many items do not reflect the language of individual standards. For example, 2.MD.D.10 states that bar graphs should represent data with up to four categories, but numerous items were found addressing five categories and several using six categories. Another example is the two items asscociated with standard 2.NBT.A.2. Both of these items require students to skip-count by 100s; the rest of the standard is not addressed. Items associated with 2.G.A.1, which requires students to recognize, draw, and identify shapes, asks students to pick the number that represents the number of 'corners' that a cube has instead of 'angles' as used in the standard. Additional examples are found at Grade 3 with items that do not reflect the language of the standard. Some items associated with standard 3.OA.D.8 with the primary focus to solve two-step word problems, were actually one-step problems. Another item, associated with standard 3.NF.A.3, required students to compare pictures instead of fractions. Another item associated with standard 3.NF.A.3b did not require students to recognize, generate, or explain why fractions are equivalent. Items aligned with standard 3.G.A.2 did not address Area. Additional examples, at grade 4, associated with standard 4.NF.A.1, simply require students to pick equivalent models but do not address or show equivalent fractions specifically. Another item associated with standard 4.NF.A.2, did not require students to compare two fractions. Additional such examples were found at Grade 5.

[11] Refer also to the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013) and the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[12] See the Quality Criteria Checklist for Mathematics.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			For example, items that focused on multiplication and not place value. Items associated with 5.OA.A.1, were found where the parentheses do not affect the answers. Items associated with 5.NF.A.1 instruct students to "Add and Simplify;" the focus is not on using equivalent fractions to add as stated in the standard Numerous items associated with standard 5.NF.A.3 did not present problems actually aligned to this standard.
	1b) Items and/or sets of items align with PARCC's evidence tables for grades 3-8 and adhere to content limitations outlined in that document. All limitations for all grade K-HS provided in footnotes of the CCSSM are also followed. For example, in Grade 3 denominators for fractions are limited to 2, 3, 4, 6 and 8.	**No**	Items are included that do not adhere to the footnotes of the CCSSM. There are several examples in Grade 3. For example, numerous items included the denominators of 5, 9, 10, 12, 15, 16, 17, 18, 24, 48, and 56 that fall outside the appropriate grade level. Grade 3 fractions should be limited to denominators of 2, 3, 4, 6, and 8. More examples were found at Grade 4 which require students to write an equivalent fraction from a fraction with a denominator of 9, 15, 16, 17, 18, 20, 24, 48, 56, 400. Grade 4 fractions should be limited to denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100. Items are also included that do not adhere to the PARCC evidence tables. Numerous items were examined that prompt students response and do not set up the appropriate level of student authonomy to demonstrate underanding. For example, items that provide visual fraction models. The evidence table for Grade 3 states that prompts should not provide visual fraction models. Items at Grade 4 provide students with number lines with benchmark fractions marked or fraction models. The evidence table for Grade 4 states that "tasks require the student to choose the comparison strategy autonomously depending on the given fractions." Items at Grade 5 associated with standard 5.G.B.3, provides answer choices that, although they match the picture provided, do

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			not follow the definition of trapezoid as used in the evidence table for Grade 5. According to the evidence table for Grade 5, items aligned to 5.NBT.B.7 should not have a context; numerous items were found having a context.
	1c) The overall set of items reflect the progressions in the Standards. • For example, multiplication and division items in grade 3 emphasize equal groups, with no rate problems (grade 6 in CCSS).	**No**	The overall set of test items available does not address each standard within the 2-5 grade band. With insufficient standards present, progression is not shown through the grade band. Therefore, the overall set of items does not reflect the progressions in the standards for grades 2-5. For example, the Number and Operations-Fractions domain is introduced in Grade 3, but no items are provided for 3.NF.A.2, 3.NF.A.3a, and 3.NF.A.3c.
	1d) Within the complete set of items, there are items which assess all levels of the content hierarchy, including cluster headings.	**No**	Within the complete set of items, items do not assess all levels of content hierarchy as indicated in the 2-5 CCSS. There are many individual standards that are not addressed as well as 24 standards outside of grades 2-5 that are assessed either once or multiple times. No questions were provided for the following 2-5 standards: major standards: 2.NBT.6, 2.NBT.8, 2.NBT.9, 2.MD.2, 2.MD.3, 2.MD.4, 2.MD.6, 3.NF.2, 4.NF.7, 5.NF.5, 5.MD.3, supporting standards: 2.OA.3, 2.OA.4, 2.MD.9, 3.MD.4, 3.G.1,5.MD.2, additional standards: 2.G.2, 3.NBT.3, 4.MD.5, 4.MD.7, 5.OA.2, 5.OA.3, and 5.G.4
	1e) Using the number system appropriate to the grade level. • 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**	For the most part, items used the number system appropriate to the grade level. Grade 3 does not include a significant number of items with fractions greater than 1.
Non-Negotiable 2. FOCUS ON MAJOR WORK*: The large majority of points in each grade K–8 are devoted to the major work of the grade, and the majority of points in each High School course are devoted to widely applicable	**FOR GRADES K–8 ONLY** **For grades K–8**, 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	**No**	Not all standards that are addressed are addressed equally throughout the test, (i.e., 5.NBT.7 is assessed 66 times while some other major standards are not addressed at all). Several of the standards are only assessed in one question, which does not show a level of mastery of that standard. Many of the standards are also not assessed at all

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/COMMENTS WITH EXAMPLES
prerequisites.[13] *This criterion applies to fixed form or CAT assessments, whether summative assessments or a set of interim/benchmark assessments. Item banks also should reflect the proportions in the metrics.* ☐ Yes ☒ No ***As applicable to the grade level assessment being reviewed.**	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 6–8 align exclusively to the major work of the grade.		(major standards: 2.NBT.6, 2.NBT.8, 2.NBT.9, 2.MD.2, 2.MD.3, 2.MD.4, 2.MD.6, 3.NF.2, 4.NF.7, 5.NF.5, 5.MD.3, supporting standards: 2.OA.3, 2.OA.4, 2.MD.9, 3.MD.4, 3.G.1,5.MD.2, additional standards: 2.G.2, 3.NBT.3, 4.MD.5, 4.MD.7, 5.OA.2, 5.OA.3, and 5.G.4). Approximately 44% of the total points in Grade 2 align to major work of the grade. Approximately 79% of the total points in Grade 3 align to major work of the grade. Approximately 57% of the total points in Grade 4 align to major work of the grade. Approximately 77% of the total points in Grade 5 align to major work of the grade.
	FOR HIGH SCHOOL ONLY **For high school**, aligned assessments or sets of assessments **meet or exceed** the following score-point distribution: • 50% of the total points in high school align to content of Common Core State Standards identified as widely applicable prerequisites for a range of college majors, postsecondary programs, and careers.[14]	**N/A**	
Non-Negotiable 3. FOCUS IN K–8: No item assesses topics directly or indirectly before they are introduced in the CCSSM.[15] *This criterion applies to fixed form or*	90% of items on an assessment address only knowledge of topics found in the CCSSM in the specified grade level. Commonly misaligned topics include, but are not limited to: • **Probability,** including chance, likely outcomes, probability models**.** (Introduced in the CCSSM in grade 7) • **Statistical distributions**, including center, variation,	**No**	Progression within the assessment was based on the student's ability level; therefore, the student may or may not be working on grade level material. 87% of the items in the overall set address only knowledge of topics found in the 2-5 CCSSM. The remaining items addressed standards outside of grades 2-5. Some individual items assess topics

[13] Refer also to criterion #1 in K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013) and criterion #1 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[14] Refer also to page 8 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[15] Refer also to criterion #2 in the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/COMMENTS WITH EXAMPLES
CAT assessments, whether a summative assessment or a set of interim/benchmark assessments. All Items also should reflect the metric. ☐ Yes ☒ No	clumping, outliers, mean, median, mode, range, quartiles; and **statistical association or trends**, including two-way tables, bivariate measurement data, scatter plots, trend line, line of best fit, correlation. (Introduced in the CCSSM in grades 6–8; see CCSSM for specific expectations by grade level.) • **Similarity, congruence, or geometric transformations.** (Introduced in the CCSSM in grade 8) • **Symmetry** of shapes, including line/reflection symmetry, rotational symmetry. (Introduced in the CCSSM in grade 4)		before the specified grade level. For example, one item examined requires students to identify a parallelogram. This item is aligned to 2.G.A.1, but this concept is a fourth grade concept.
SECTION II: Balance: Submissions must meet Rigor and Balance criterion in order for the review to continue.			
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.[16] *This criterion applies to fixed form or CAT assessments, whether summative assessments or a set of interim/benchmark assessments. Item banks also should reflect the proportions in the metrics.*	**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 of key mathematical concepts, especially where called for in specific content standards or cluster headings.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.

	4b) *For Procedural Skill and Fluency:*
	• ***K–6:*** At least 20% of the score-points on the assessment(s) for each grade explicitly assess procedural skill and fluency requirements in the Standards.
	• ***7–8 and High School:*** At least 20% of the score-points on the assessment(s) for each grade or course explicitly assess procedural skill and fluency/culminating standards.
	  • Grade 7: 7.EE.3, 7.EE.4, 7.NS.1
	  • Grade 8: 8.EE.7, 8.G.9
	High School: See PARCC Model Content Frameworks, pages 46, 49, 53, 54
		Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.

	4c) *For Applications* • ***K–5:*** At least 20% of the total score-points on the	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.

[16] Refer also to criterion #4 in the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013) and criterion #2 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/COMMENTS WITH EXAMPLES
☐ Yes ☐ No	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.		
	4d) ***Grades 3-High School***: PARCC Type II and Type III Performance-Based Tasks [17] • At least two items on each assessment for each grade or course align with PARCC's Type II (Subclaim C) Evidence Statements. One item is a 3-point item and the second a 4-point item. A rubric for hand scoring any part of an item that cannot be machine scored is provided. At least two items on each assessment for each grade or course align with PARCC's Type III (Subclaim D) Evidence Statements. One item is a 3-point item and the second a 6-point item. A rubric for hand scoring any part of an item that cannot be machine scored is provided.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
SECTION III: ADDITIONAL INDICATORS 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.[18]		**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
6. Assessing Supporting Content. Assessment of supporting content enhances focus and coherence simultaneously by engaging students in the major work of the grade or course.[19]		**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
7. Addressing Every Standard for Mathematical Practice. Every Standard for Mathematical Practice is represented on the assessment(s) for each grade or course.		**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.

[17] See page 2 of PARCC's Evidence Tables - High Level Overview and the PBA Evidence tables for each grade. An example of a Subclaim C evidence staement is 4.C.2. An example of a Subclaim D evidence statement is 4.D.1. To view PARCC's prototype Type II and Type III items, go to http://www.parcconline.org/samples/mathematics/grade-4-mathematics.

[18] Refer also to criterion #7 in the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013) and criteria #5 High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).

[19] Refer also to criterion #3 in the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/COMMENTS WITH EXAMPLES
8. Expressing Mathematical Reasoning. There are sufficiently many points on the assessment(s) for each grade or course that explicitly assess expressing and/or communicating mathematical reasoning.		**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
9. 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.
10. Calling for Variety in Student Work. Items 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, diagrams, mathematical models, etc.[20]		**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
11. 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 – 3, a "Yes" in Column 1 for Criteria 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 – 3), a "Yes" in Column 1 for Criteria 4, but at least one "No" for additional indicators 5 – 11. ***Tier 3 ratings*** receive a "No" in Column 1 for at least criteria in Section I or Section II.			
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**	Provided content is not fully aligned with CCSS. Not all standards are addressed in the provided content, therefore progressions were hard to establish. Progressions within each standard are not fully developed and some standards address only basic concepts of the standard. All levels of content hierarchy and cluster headings are not addressed. The appropriate number system is used for the grade level.
	2. Focus on Major Work	**No**	Although it varied by grade-level, overall there was a lack of focus on major work.
	3. Focus in K-8	**No**	87% of the items address only knowledge of topics found in the 2-5CCSSM. The remaining items addressed standards from grades outside of grades 2-5.
II. Balance	4. Rigor and Balance	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
III: Additional Indicators of Quality	5. Practice-Content Connections	**Not Evaluated**	This section was not evaluated because the non-

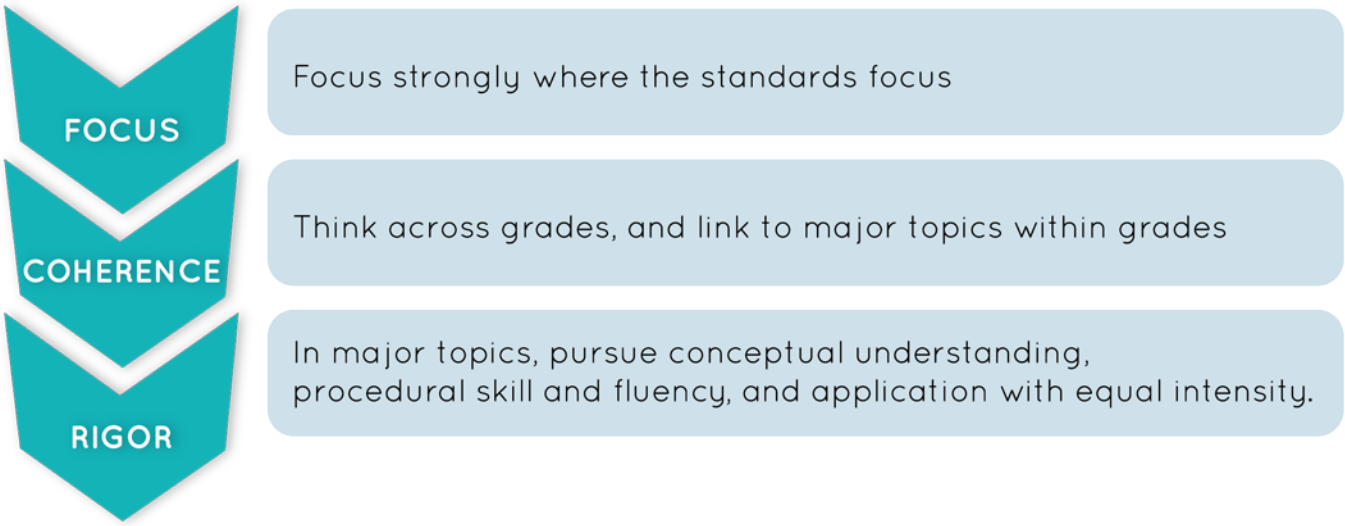
[20] Refer also to criterion #9 in the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013) and criteria #7 High School Publishers' Criteria for the CCSSM (Spring 2013).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/COMMENTS WITH EXAMPLES
			negotiable criteria were not met.
	6. Assessing Supporting Content	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	7. Addressing Every Standard for Mathematical Practice	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	8. Expressing Mathematical Reasoning	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	9. Constructing Forms Without Cueing Solution Processes	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	10. Calling for Variety in Student Work	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.
	11. Quality Materials	**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

Strong mathematics instruction contains the following elements:



Title: **MAP Assessments** Grade: **K-2**

Publisher: **Northwest Evaluation Association (NWEA)** Copyright: **2014**

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

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

STRONG	WEAK
	1. Alignment of Test Items (Non-Negotiable)
	2. Focus on Major Work (Non-Negotiable)
	3. Focus in K-8 (Non-Negotiable)

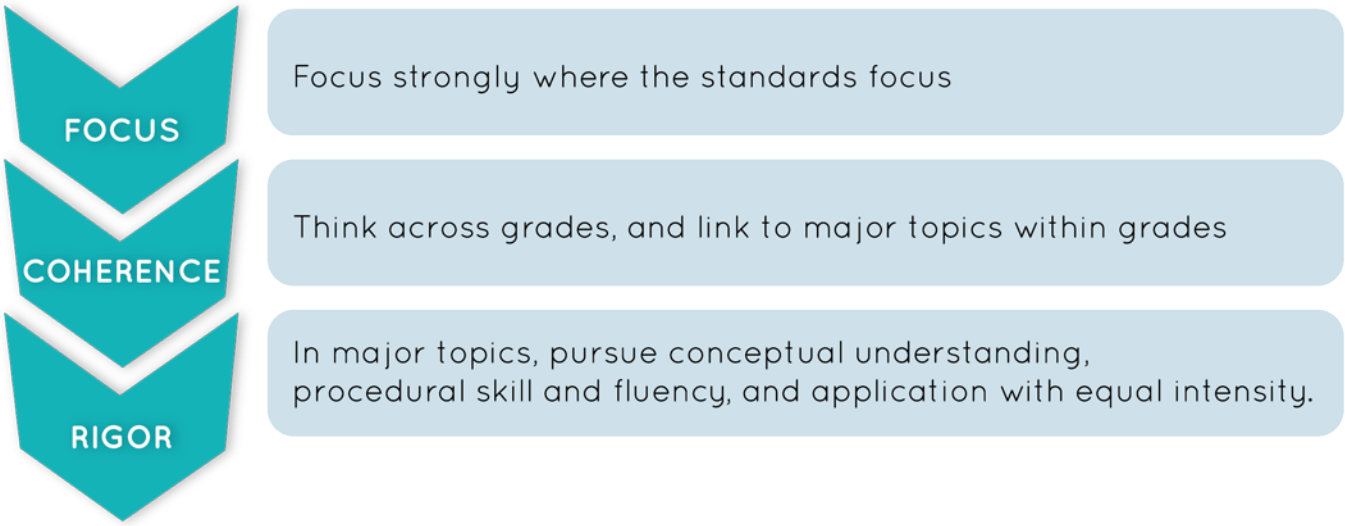
Each set of submitted materials was evaluated for alignment with the standards beginning with a review of the indicators for the non-negotiable criteria. If those criteria were met, a review of the other criteria ensued.

Tier 1 ratings receive a "Yes" in Column 1 for Criteria 1 – 11.
Tier 2 ratings receive a "Yes" in Column 1 for all non-negotiable criteria (Criteria 1 – 3), a "Yes" in Column 1 for Criteria 4 in Section II, but at least one "No" in Section III.
Tier 3 ratings receive a "No" in Column 1 in Section I or Section II.

Click below for complete grade-level reviews:

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

Strong mathematics instruction contains the following elements:



Title: **MAP Assessments** Grade: **K-2**

Publisher: **Northwest Evaluation Association (NWEA)** Copyright: **2014**

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

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

STRONG	WEAK
	1. Alignment of Test Items (Non-Negotiable)
	2. Focus on Major Work (Non-Negotiable)
	3. Focus in K-8 (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, begin by reviewing the indicators in Column 2 for each criterion. If there is a "Yes" for all 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. For Section III, review each indicator individually.

Tier 1 ratings receive a "Yes" in Column 1 for Criteria 1 – 11.
Tier 2 ratings receive a "Yes" in Column 1 for all non-negotiable criteria (Criteria 1 – 3), a "Yes" in Column 1 for Criteria 4 in Section II, but at least one "No" in Section III.
Tier 3 ratings receive a "No" in Column 1 in Section I or Section II.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/COMMENTS WITH EXAMPLES	PUBLISHER COMMENTS
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: 90% of test items and/or sets of items exhibit alignment to the full intent of the CCSSM for that grade or course[1] [2] by eliciting direct, observable evidence of the degree to which a student can independently demonstrate the targeted standard(s). *This criterion applies to fixed form or CAT assessments, whether summative assessments or a set of interim/benchmark assessments. All items and/or sets of items should reflect the metric.* ☐ Yes ☒ No	**1a)** Items and/or sets of items directly reflect the language of individual standards. • For example, 6.EE.3 puts the emphasis on applying properties of operations and generating equivalent expressions, not just mechanically simplifying. • Most items aligned to a single standard should assess the central concern of the standard in question.	**No**	There is no evidence of conceptual understanding being assessed in these items. All questions are multiple choice, and there is no application present.	The MAP tests for students in grades K-2 are made up of multiple choice-items and three different types of technology enhanced items: choice interaction, gap match, and graphic gap match. The technology enhanced item types provide more open-ended tasks that allow for more authentic assessment of student understanding of the concepts and skills in the standards. The grades K-2 MAP for Mathematics tests also include audio, which ensures that a student's reading ability does not affect his or her Mathematics test scores.
	1b) Items and/or sets of items align with PARCC's evidence tables for grades 3-8 and adhere to content limitations outlined in that document. All limitations for all grade K-HS provided in footnotes of the CCSSM are also followed. For example, in Grade 3 denominators for fractions are limited to 2, 3, 4, 6 and 8.	**N/A**		
	1c) The overall set of items reflect the progressions in the Standards. • For example, multiplication and division items in grade 3 emphasize equal groups, with no rate problems (grade 6 in CCSS).	**No**	Not all standards that are addressed are addressed equally throughout the test, and some of the additional standards are assessed more than the major or supporting standards. (i.e., K.G.1). Several of the standards are only assessed in one question, which does not show a level of mastery of that standard. Many of the standards are also not assessed at all (major standards: K.CC.4, K.OA.3, K.OA.4, 1.OA.4, 1.NBT.5, 1.MD.1, 2.NBT.6, 2.MD.2, 2.MD.6, supporting standards: K.G.5, additional standards: K.G.3, and 2.G.2).	NWEA currently has items aligned to all of the standards listed as not assessed in the comments except for standard K.G.5. ("Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.") . It is our opinion that this standard is best assessed only in the classroom. The item pool for the grades K-2 MAP for Mathematics test aligned to the Common Core State Standards (CCSS) has approximately 2,000 items. The items submitted to the state for review were from simulated test events. Because MAP tests select items based on an individual student's performance on the test, the simulated test events did not include items aligned to the standards listed

[1] Refer also to the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013) and the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[2] See the Quality Criteria Checklist for Mathematics.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/COMMENTS WITH EXAMPLES	PUBLISHER COMMENTS
				in the reviewer comments. However, this does not mean that NWEA does not have items aligned to those standards. Further, even if a student does not see an item aligned to a particular standard, the NWEA RIT scores still provide educators with a very accurate estimate of whether a student is developing understanding of the skills in the standard or has a strong understanding of the skills in all of the standards assessed regardless of whether a student actually answers an item aligned to that standard. The Learning Continuum reports that accompany MAP assessments provide these data to educators. Although our RIT scores provide estimates of student ability, they are proven to be extremely reliable. MAP tests take approximately 45-50 minutes to complete, meaning that educators can get an accurate snapshot of a student's mathematics and reading ability in 90 minutes. It is also important to note that MAP tests are interim, growth assessments and not summative tests. Our reports indicate content students have likely learned and content that students are ready to learn. However, MAP tests are designed to show growth over time and student achievement regardless of grade level.
	1d) Within the complete set of items, there are items which assess all levels of the content hierarchy, including cluster headings.	**No**	Within the complete set of items, items do not assess all levels of content hierarchy as indicated in the K-2 CCSS. There are many individual standards that are not addressed as well as 13 3rd grade standards that are assessed either once or multiple times. No questions were provided for the following K-2 standards: major standards: K.CC.4, K.OA.3, K.OA.4, 1.OA.4, 1.NBT.5, 1.MD.1, 2.NBT.6, 2.MD.2, 2.MD.6, supporting standards: K.G.5, additional standards: K.G.3, and 2.G.2.	NWEA currently has items aligned to all of the standards listed as not assessed in the comments except for standard K.G.5. ("Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.") . It is our opinion that this standard is best assessed only in the classroom. The item pool for the grades K-2 MAP for Mathematics test aligned to the CCSS has approximately 2,000 items. The items submitted to the state for review were from simulated test

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/COMMENTS WITH EXAMPLES	PUBLISHER COMMENTS
				events. Because MAP tests select items based on an individual student's performance on the test, the simulated test events did not include items aligned to the standards listed in the reviewer comments. However, this does not mean that NWEA does not have items aligned to those standards. Further, even if a student does not see an item aligned to a particular standard, the NWEA RIT scores still provide educators with a very accurate estimate of whether a student is developing understanding of the skills in the standard or has a strong understanding of the skills in all of the standards assessed regardless of whether a student actually answers an item aligned to that standard. The Learning Continuum reports that accompany MAP assessments provide these data to educators. Although our RIT scores provide estimates of student ability, they are proven to be extremely reliable. MAP tests take approximately 45-50 minutes to complete, meaning that educators can get an accurate snapshot of a student's mathematics and reading ability in 90 minutes. It is also important to note that MAP tests are interim, growth assessments and not summative tests. Our reports indicate content students have likely learned and content that students are ready to learn. However, MAP tests are designed to show growth over time and student achievement regardless of grade level.
	1e) Using the number system appropriate to the grade level. • 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**	The number system was used appropriately to K-2.	

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/COMMENTS WITH EXAMPLES	PUBLISHER COMMENTS
Non-Negotiable 2. FOCUS ON MAJOR WORK*: The large majority of points in each grade K–8 are devoted to the major work of the grade, and the majority of points in each High School course are devoted to widely applicable prerequisites.[3] *This criterion applies to fixed form or CAT assessments, whether summative assessments or a set of interim/benchmark assessments. Item banks also should reflect the proportions in the metrics.* ☐ Yes ☒ No ***As applicable to the grade level assessment being reviewed.**	**FOR GRADES K–8 ONLY** **For grades K–8**, 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 6–8 align exclusively to the major work of the grade.	**No**	50% of the total points align exclusively to the major work of grades K-2.	NWEA does not weight our tests based on PARCC's "major" standard designation. The items presented to a student in any given test event are determined by the individual student's achievement level and by the test's goal structure. Goal structures are test frameworks that group all assessable standards into goal areas that represent content domains and sub-goals that represent common groupings of grade level expectations that cover related topics along the learning continuum within each standard. Each student is administered a balanced number of items in each goal area to estimate an overall score and goal scores. Because MAP tests are adaptive and designed to provide data about students across the achievement continuum--including students who are performing below level or above level--the item pools that support these tests are very large and include items that may range in complexity from the most basic "building block" aspect of a skill to analytical or evaluative aspects of the skill.
	FOR HIGH SCHOOL ONLY **For high school**, aligned assessments or sets of assessments **meet or exceed** the following score-point distribution: • 50% of the total points in high school align to content of Common Core State Standards identified as widely applicable prerequisites for a range of college majors, postsecondary programs, and careers.[4]	**N/A**		
Non-Negotiable 3. FOCUS IN K–8: No item assesses topics directly or indirectly before they are introduced in the CCSSM.[5] *This criterion applies to fixed form or*	90% of items on an assessment address only knowledge of topics found in the CCSSM in the specified grade level. Commonly misaligned topics include, but are not limited to: • **Probability,** including chance, likely outcomes, probability models**.** (Introduced in the CCSSM in grade 7)	**No**	82% of the items address only knowledge of topics found in the K-2 CCSSM. The remaining items addressed 3rd grade standards.	The NWEA MAP assessments are designed to assess students at their individual learning level, regardless of grade level. The grades K-2 MAP for Mathematics test aligned to the CCSS includes items aligned to the K-3 CCSS. This way, if a student is performing above second grade, the test identifies third grade standards that the student is ready to learn or has

[3] Refer also to criterion #1 in K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013) and criterion #1 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[4] Refer also to page 8 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[5] Refer also to criterion #2 in the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/COMMENTS WITH EXAMPLES	PUBLISHER COMMENTS
CAT assessments, whether a summative assessment or a set of interim/benchmark assessments. All Items also should reflect the metric. ☐ Yes ☒ No	• **Statistical distributions**, including center, variation, clumping, outliers, mean, median, mode, range, quartiles; and **statistical association or trends**, including two-way tables, bivariate measurement data, scatter plots, trend line, line of best fit, correlation. (Introduced in the CCSSM in grades 6–8; see CCSSM for specific expectations by grade level.) • **Similarity, congruence, or geometric transformations.** (Introduced in the CCSSM in grade 8) • **Symmetry** of shapes, including line/reflection symmetry, rotational symmetry. (Introduced in the CCSSM in grade 4)			learned. The grades K-2 MAP for Mathematics test aligned to the CCSS does not include items that assess probability, statistical distribution, similarity, congruence, transformations, or symmetry.
SECTION II: Balance: Submissions must meet Rigor and Balance criterion in order for the review to continue.				
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.[6] *This criterion applies to fixed form or CAT assessments, whether summative assessments or a set of interim/benchmark assessments. Item banks also should reflect the proportions in the metrics.*	**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 of key mathematical concepts, especially where called for in specific content standards or cluster headings.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.	

	4b) *For Procedural Skill and Fluency:*
	• ***K–6:*** At least 20% of the score-points on the assessment(s) for each grade explicitly assess procedural skill and fluency requirements in the Standards.
	• ***7–8 and High School:*** At least 20% of the score-points on the assessment(s) for each grade or course explicitly assess procedural skill and fluency/culminating standards.
	  • Grade 7: 7.EE.3, 7.EE.4, 7.NS.1
	  • Grade 8: 8.EE.7, 8.G.9
	High School: See PARCC Model Content Frameworks, pages 46, 49, 53, 54
		Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.	

	4c) *For Applications*	**Not Evaluated**	This section was not evaluated because the non-	

[6] Refer also to criterion #4 in the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013) and criterion #2 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/COMMENTS WITH EXAMPLES	PUBLISHER COMMENTS
☐ Yes ☐ No	• ***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.		negotiable criteria were not met.	
	4d) *Grades 3-High School*: PARCC Type II and Type III Performance-Based Tasks [7] • At least two items on each assessment for each grade or course align with PARCC's Type II (Subclaim C) Evidence Statements. One item is a 3-point item and the second a 4-point item. A rubric for hand scoring any part of an item that cannot be machine scored is provided. At least two items on each assessment for each grade or course align with PARCC's Type III (Subclaim D) Evidence Statements. One item is a 3-point item and the second a 6-point item. A rubric for hand scoring any part of an item that cannot be machine scored is provided.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.	
SECTION III: ADDITIONAL INDICATORS 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.[8]		**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.	
6. Assessing Supporting Content. Assessment of supporting content enhances focus and coherence simultaneously by engaging students in the major work of the grade or course.[9]		**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.	
7. Addressing Every Standard for Mathematical Practice. Every Standard for Mathematical Practice is		**Not Evaluated**	This section was not evaluated because the non-	

[7] See page 2 of PARCC's Evidence Tables - High Level Overview and the PBA Evidence tables for each grade. An example of a Subclaim C evidence staement is 4.C.2. An example of a Subclaim D evidence statement is 4.D.1. To view PARCC's prototype Type II and Type III items, go to http://www.parcconline.org/samples/mathematics/grade-4-mathematics.
[8] Refer also to criterion #7 in the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013) and criteria #5 High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[9] Refer also to criterion #3 in the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).

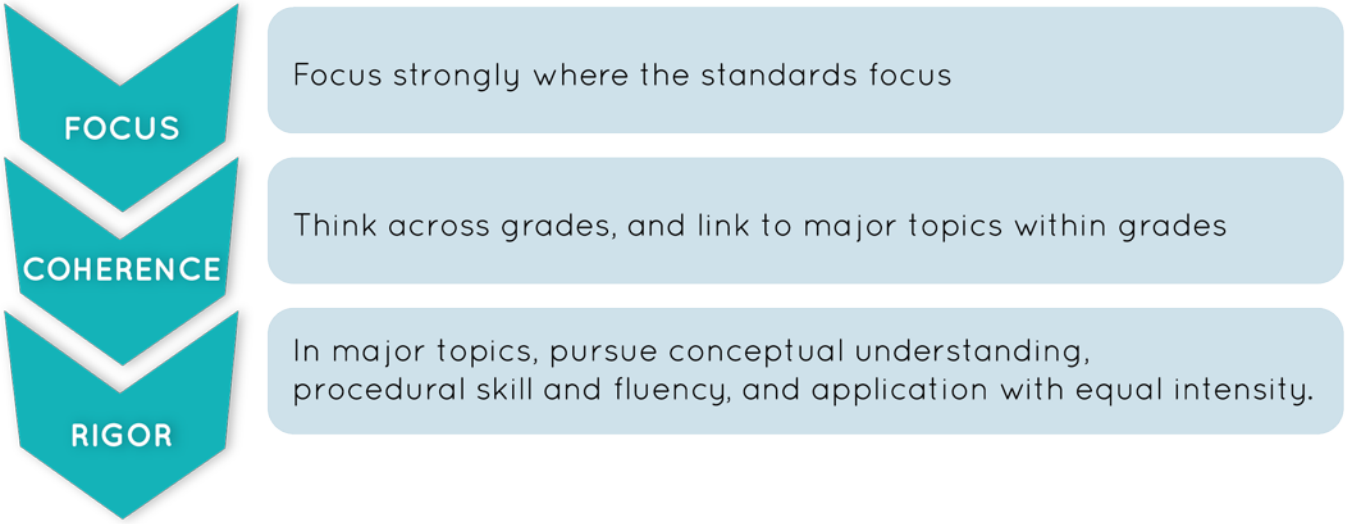
CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/COMMENTS WITH EXAMPLES	PUBLISHER COMMENTS
represented on the assessment(s) for each grade or course.			negotiable criteria were not met.	
8. Expressing Mathematical Reasoning. There are sufficiently many points on the assessment(s) for each grade or course that explicitly assess expressing and/or communicating mathematical reasoning.		**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.	
9. 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.	
10. Calling for Variety in Student Work. Items 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, diagrams, mathematical models, etc.[10]		**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.	
11. 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 – 3, a "Yes" in Column 1 for Criteria 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 – 3), a "Yes" in Column 1 for Criteria 4, but at least one "No" for additional indicators 5 – 11. ***Tier 3 ratings*** receive a "No" in Column 1 for at least criteria in Section I or Section II.				
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**	Provided content is not fully aligned with CCSS. Not all standards are addressed in the provided content, therefore progressions were hard to establish. Progressions within each standard are not fully developed and some standards address only basic concepts of the standard. All levels of content hierarchy and cluster headings are not addressed. The appropriate number system is used for the grade level.	The item pool for the grades K-2 MAP for Mathematics test aligned to the CCSS has approximately 2,000 items. The items submitted to the state for review were from simulated test events. Because MAP tests select items based on an individual student's performance on the test, the simulated test events did not include items aligned to the standards listed in the reviewer comments. However, this does not mean that NWEA does not have items aligned to those standards. Further, even if a student does not see an item aligned to a particular standard, the NWEA RIT scores still provide educators with a very accurate estimate of whether a student is developing understanding of the skills in the standard or has a

[10] Refer also to criterion #9 in the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013) and criteria #7 High School Publishers' Criteria for the CCSSM (Spring 2013).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/COMMENTS WITH EXAMPLES	PUBLISHER COMMENTS
				strong understanding of the skills in all of the standards assessed regardless of whether a student actually answers an item aligned to that standard. The Learning Continuum reports that accompany MAP assessments provide these data to educators. Although our RIT scores provide estimates of student ability, they are proven to be extremely reliable. MAP tests take approximately 45-50 minutes to complete, meaning that educators can get an accurate snapshot of a student's math and reading ability in 90 minutes.
	2. Focus on Major Work	**No**	Only 50% of the items address the major work of grades K-2.	NWEA does not weight our tests based on PARCC's "major" standard designation. The items presented to a student in any given test event are determined by the individual student's achievement level and by the test's goal structure. Goal structures are test frameworks that group all assessable standards into goal areas that represent content domains and sub-goals that represent common groupings of grade level expectations that cover related topics along the learning continuum within each standard. Each student is administered a balanced number of items in each goal area to estimate an overall score and goal scores. Because MAP tests are adaptive and designed to provide data about students across the achievement continuum – including students who are performing below level or above level – the item pools that support these tests are very large and include items that may range in complexity from the most basic "building block" aspect of a skill to analytical or evaluative aspects of the skill.
	3. Focus in K-8	**No**	82% of the items address only knowledge of topics found in the K-2 CCSSM. The remaining items addressed 3rd grade standards.	The MAP assessments are designed to assess students where they are, regardless of grade level. The grades K-2 MAP for Mathematics test aligned to the CCSS has items aligned to the K-3 CCSS. This way, if a student is performing above second grade, the test identifies third grade standards that the student is ready to learn or has learned.
II. Balance	4. Rigor and Balance	**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	PUBLISHER COMMENTS
III: Additional Indicators of Quality	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.	
	7. Addressing Every Standard for Mathematical Practice	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.	
	8. Expressing Mathematical Reasoning	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.	
	9. Constructing Forms Without Cueing Solution Processes	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.	
	10. Calling for Variety in Student Work	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.	
	11. Quality Materials	**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: **MAP Assessments** Grade: **2-5**

Publisher: **Northwest Evaluation Association (NWEA)** Copyright: **2014**

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

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

STRONG	WEAK
	1. Alignment of Test Items (Non-Negotiable)
	2. Focus on Major Work (Non-Negotiable)
	3. Focus in K-8 (Non-Negotiable)

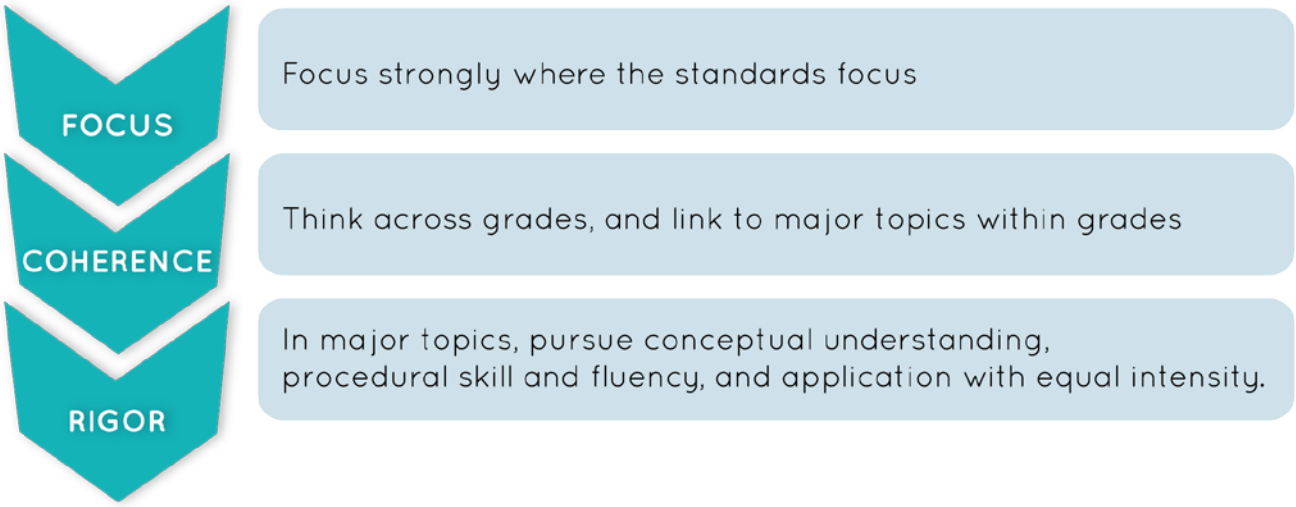
Each set of submitted materials was evaluated for alignment with the standards beginning with a review of the indicators for the non-negotiable criteria. If those criteria were met, a review of the other criteria ensued.

Tier 1 ratings receive a "Yes" in Column 1 for Criteria 1 – 11.
Tier 2 ratings receive a "Yes" in Column 1 for all non-negotiable criteria (Criteria 1 – 3), a "Yes" in Column 1 for Criteria 4 in Section II, but at least one "No" in Section III.
Tier 3 ratings receive a "No" in Column 1 in Section I or Section II.

Click below for complete grade-level reviews:

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

Strong mathematics instruction contains the following elements:



Title: **MAP Assessments** Grade: **2-5**

Publisher: **Northwest Evaluation Association (NWEA)** Copyright: **2014**

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

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

STRONG	WEAK
	1. Alignment of Test Items (Non-Negotiable)
	2. Focus on Major Work (Non-Negotiable)
	3. Focus in K-8 (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, begin by reviewing the indicators in Column 2 for each criterion. If there is a "Yes" for all 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. For Section III, review each indicator individually.

Tier 1 ratings receive a "Yes" in Column 1 for Criteria 1 – 11.
Tier 2 ratings receive a "Yes" in Column 1 for all non-negotiable criteria (Criteria 1 – 3), a "Yes" in Column 1 for Criteria 4 in Section II, but at least one "No" in Section III.
Tier 3 ratings receive a "No" in Column 1 in Section I or Section II.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/COMMENTS WITH EXAMPLES	PUBLISHER COMMENTS
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: 90% of test items and/or sets of items exhibit alignment to the full intent of the CCSSM for that grade or course[11] [12] by eliciting direct, observable evidence of the degree to which a student can independently demonstrate the targeted standard(s). *This criterion applies to fixed form or CAT assessments, whether summative assessments or a set of interim/benchmark assessments. All items and/or sets of items should reflect the metric.* ☐ Yes ☒ No	**1a)** Items and/or sets of items directly reflect the language of individual standards. • For example, 6.EE.3 puts the emphasis on applying properties of operations and generating equivalent expressions, not just mechanically simplifying. • Most items aligned to a single standard should assess the central concern of the standard in question.	**No**	Many items do not reflect the language of individual standards. For example, 2.MD.D.10 states that bar graphs should represent data with up to four categories, but numerous items were found addressing five categories and several using six categories. Another example is the two items asscociated with standard 2.NBT.A.2. Both of these items require students to skip-count by 100s; the rest of the standard is not addressed. Items associated with 2.G.A.1, which requires students to recognize, draw, and identify shapes, asks students to pick the number that represents the number of 'corners' that a cube has instead of 'angles' as used in the standard. Additional examples are found at Grade 3 with items that do not reflect the language of the standard. Some items associated with standard 3.OA.D.8 with the primary focus to solve two-step word problems, were actually one-step problems. Another item, associated with standard 3.NF.A.3, required students to compare pictures instead of fractions. Another item associated with standard 3.NF.A.3b did not require students to recognize, generate, or explain why fractions are equivalent. Items aligned with standard 3.G.A.2 did not address Area. Additional examples, at grade 4, associated with standard 4.NF.A.1, simply require students to pick equivalent models but do not address or show equivalent fractions specifically. Another item associated with standard 4.NF.A.2, did not require students to compare two fractions. Additional such examples were found at Grade 5. For example, items that focused on multiplication and not place value. Items associated with 5.OA.A.1, were found where the parentheses do not affect the	The item pool for the Common Core State Standards (CCSS) aligned MAP for Mathematics 2-5 has approximately 3,000 total items. The items in the CCSS-aligned MAP assessments have been hand aligned to the standards by NWEA Content Specialists, all of whom have expert knowledge of the standards and regularly participate in professional development about the standards to maintain this knowledge. An external alignment study carried out by WestEd on a representative sample of MAP for Reading, Language Usage, and Mathematics assessment items in 2012 provided further validation of alignment to the CCSS. The items identified in the reviewer comments represent a very small subset of our entire CCSS-aligned item pool. Many of these comments point out the fact that an item does not address the entire standard to which it is aligned. NWEA items only assess one concept or skill per item. This ensures that the item's calibrated RIT score accurately reflects the level of the skill or concept assessed by the item. For example, with regard to the comment about the items aligned to standard 2.NBT.2, if a single item assessed counting by ones and counting by 100s and a student got the item wrong, it would be impossible to determine which part of the item the student did not know. There are two instances in the reviewer's comments where the reviewer reached a different conclusion about an alignment than the NWEA Mathematics Content Specialists: • 2.G.1: The CCSS does not provide set guidelines in terms of what vocabulary should be used at each grade level. NWEA Content Specialists have carefully read the Progressions for the Common

[11] Refer also to the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013) and the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[12] See the Quality Criteria Checklist for Mathematics.

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/COMMENTS WITH EXAMPLES	PUBLISHER COMMENTS
			answers. Items associated with 5.NF.A.1 instruct students to "Add and Simplify;" the focus is not on using equivalent fractions to add as stated in the standard Numerous items associated with standard 5.NF.A.3 did not present problems actually aligned to this standard.	Core State Standards in Mathematics (draft): Geometry, the Tools for the Common Core Standards blog, and the Illustrative Mathematics tasks to determine what vocabulary is most likely to be acceptable at each grade level. The Illustrative Mathematics site has a task aligned to standard 2.G.1 that uses the term "corners." (https://www.illustrativemathematics.org/content-standards/G/2/A/1/tasks/1506) The text for standards 2.G.1 says, "Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces." The "such as" in the standard implies that "angles" and "equal faces" are examples of acceptable vocabulary and that other vocabulary is also acceptable. Based on that and the presence of the term "corners" in the Illustrative Mathematics task aligned to standard2.G.1, we have decided that corners is acceptable vocabulary for standard 2.G.1. However, we also consider "angles" and "equal faces" acceptable vocabulary. We have documented these types of decisions for all of the CCSS and have created extensive criteria for what constitutes a true alignment for each standard. Our documentation ensures that we make consistent alignment decisions for all of our items. • 3.OA.8: The second clause in this standard says, "Assess the reasonableness of answers using mental computation and estimation strategies including rounding." Because this is the only standard that addresses using estimation strategies to solve word problems, we aligned both one-step and two-step word problems where students are asked to estimate the answer to standard 3.OA.8.
	1b) Items and/or sets of items align with PARCC's evidence tables for grades 3-8 and adhere to content limitations outlined in that document. All limitations for all grade K-HS provided in footnotes of the CCSSM are also followed. For example, in Grade 3 denominators for fractions are limited to 2, 3, 4, 6 and 8.	**No**	Items are included that do not adhere to the footnotes of the CCSSM. There are several examples in Grade 3. For example, numerous items included the denominators of 5, 9, 10, 12, 15, 16, 17, 18, 24, 48, and 56 that fall outside the appropriate grade level. Grade 3 fractions should be limited to	The CCSS-aligned MAP for Mathematics test item pool underwent review in fall of 2014 and item alignments were updated. Grade 3 fraction items are now limited to fractions with denominators 2, 3, 4, 6, and 8. Grade 4 fraction items are now limited to fractions with denominators 2, 3, 4, 5, 6, 8, 10,

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/COMMENTS WITH EXAMPLES	PUBLISHER COMMENTS
			denominators of 2, 3, 4, 6, and 8. More examples were found at Grade 4 which require students to write an equivalent fraction from a fraction with a denominator of 9, 15, 16, 17, 18, 20, 24, 48, 56, 400. Grade 4 fractions should be limited to denominators 2, 3, 4, 5, 6, 8, 10, 12, and 100. Items are also included that do not adhere to the PARCC evidence tables. Numerous items were examined that prompt students response and do not set up the appropriate level of student authonomy to demonstrate underanding. For example, items that provide visual fraction models. The evidence table for Grade 3 states that prompts should not provide visual fraction models. Items at Grade 4 provide students with number lines with benchmark fractions marked or fraction models. The evidence table for Grade 4 states that "tasks require the student to choose the comparison strategy autonomously depending on the given fractions." Items at Grade 5 associated with standard 5.G.B.3, provides answer choices that, although they match the picture provided, do not follow the definition of trapezoid as used in the evidence table for Grade 5. According to the evidence table for Grade 5, items aligned to 5.NBT.B.7 should not have a context; numerous items were found having a context.	12, and 100. Unfortunately, the updated alignments had not yet been implemented when we pulled items for review. In terms of aligning to the PARCC evidence tables, we consult the evidence tables for guidance when aligning items to the CCSS. However, because MAP tests are benchmark/interim, growth measure tests we do not adhere to all of the decisions in the PARCC evidence tables. The purpose of our tests is to provide teachers with information about individual student growth. For this reason we include items that have visual fraction models in the prompt and items that do not. In the case of standard 5.NBT.7, we made a conscious decision to align word problems items with decimals within the hundredths to this standard as there is no fifth grade standard for this specific skill. These items are described in our reports and solving one-step word problems involving decimals, so they will not be confused with items that do align the language of the standard. Again, as with the alignment decision described earlier for standard 2.G.1, this is a purposeful decision that has been documented and is applied consistently to our item pool.
	1c) The overall set of items reflect the progressions in the Standards. • For example, multiplication and division items in grade 3 emphasize equal groups, with no rate problems (grade 6 in CCSS).	**No**	The overall set of test items available does not address each standard within the 2-5 grade band. With insufficient standards present, progression is not shown through the grade band. Therefore, the overall set of items does not reflect the progressions in the standards for grades 2-5. For example, the Number and Operations-Fractions domain is introduced in Grade 3, but no items are provided for 3.NF.A.2, 3.NF.A.3a, and 3.NF.A.3c.	The CCSS-aligned MAP for Mathematics assessment item pool has over 3,000 items. The items submitted to the state for review were from simulated test events. Because MAP tests select items based on an individual student's performance on the test, the simulated test events did not include items aligned to the standards listed in the reviewer comments. However, this does not mean that NWEA does not have items aligned to those standards. We have items aligned to standards 3.NF.2 and 3.NF.3.c. We began acquiring items

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/COMMENTS WITH EXAMPLES	PUBLISHER COMMENTS
				aligned to standard 3.NF.3.a in October 2014. Further, even if a student does not see an item aligned to a particular standard, the NWEA RIT scores still provide educators with a very accurate estimate of whether a student is developing understanding of the skills in the standard or has a strong understanding of the skills in all of the standards assessed regardless of whether a student actually answers an item aligned to that standard. The Learning Continuum reports that accompany MAP assessments provide these data to educators. Although our RIT scores provide estimates of student ability, they are proven to be extremely reliable. A MAP test takes approximately 45-50 minutes to complete, meaning that educators can get an accurate snapshot of a student's mathematics, reading, and language usage ability in approximately 2 hours and 15 minutes.
	1d) Within the complete set of items, there are items which assess all levels of the content hierarchy, including cluster headings.	**No**	Within the complete set of items, items do not assess all levels of content hierarchy as indicated in the 2-5 CCSS. There are many individual standards that are not addressed as well as 24 standards outside of grades 2-5 that are assessed either once or multiple times. No questions were provided for the following 2-5 standards: major standards: 2.NBT.6, 2.NBT.8, 2.NBT.9, 2.MD.2, 2.MD.3, 2.MD.4, 2.MD.6, 3.NF.2, 4.NF.7, 5.NF.5, 5.MD.3, supporting standards: 2.OA.3, 2.OA.4, 2.MD.9, 3.MD.4, 3.G.1,5.MD.2, additional standards: 2.G.2, 3.NBT.3, 4.MD.5, 4.MD.7, 5.OA.2, 5.OA.3, and 5.G.4	The NWEA MAP assessments are designed to assess students where they are, regardless of grade level. The CCSS-aligned MAP for Mathematics test has items aligned to some of the CCSS standards below grade 2 and above grade 5. This way, if a student is performing below second grade or above fifth grade, the test can identify those specific skills and concepts. We have items aligned to standards 2.MD.2, 2.OA.3, 3.MD.4, 5.MD.2, 3.NBT.3, 4.MD.5, 4.MD.7, 5.OA.2, and 5.OA.3. Please see the response to 1c) above for more information about why items aligned to these standards did not show up in the items we pulled for review. In the Tools for the Common Core Standards blog, Dr. William McCallum describes standard 2.NBT.8 as strictly being about mental computation. ("Mentally add 10 or 100 to a given number 100-900, and mentally subtract 10 or 100 from a given number 100-900.") For this reason, we have designated this

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/COMMENTS WITH EXAMPLES	PUBLISHER COMMENTS
				standard as being classroom only. We have also designated standard 2.MD.3 ("Estimate lengths using units of inches, feet, centimeters, and meters.") as also a standard that can only be assessed in the classroom. We found that when trying to assess this standard on a computer the test item either relies on prior knowledge, interpreting our graphic, or both. If we ask students what the most reasonable measure of a pencil is and provide a picture, students may think we're asking about the size of the picture of the pencil. Without a graphic, we're basically requiring students to imagine what type and size pencil, which becomes a measure of their background knowledge about pencils. For the rest of the standards listed, NWEA is currently developing items to fill the remaining gaps as mentioned by the reviewers.
	1e) Using the number system appropriate to the grade level. • 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**	For the most part, items used the number system appropriate to the grade level. Grade 3 does not include a significant number of items with fractions greater than 1.	
Non-Negotiable 2. FOCUS ON MAJOR WORK*: The large majority of points in each grade K–8 are devoted to the major work of the grade, and the majority of points in each High School course are devoted to widely applicable prerequisites.[13] *This criterion applies to fixed form or CAT assessments, whether summative assessments or a set of interim/benchmark assessments. Item banks also should reflect the proportions in the metrics.*	**FOR GRADES K–8 ONLY** **For grades K–8**, 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 6–8 align exclusively to the major work of the grade.	**No**	Not all standards that are addressed are addressed equally throughout the test, (i.e., 5.NBT.7 is assessed 66 times while some other major standards are not addressed at all). Several of the standards are only assessed in one question, which does not show a level of mastery of that standard. Many of the standards are also not assessed at all (major standards: 2.NBT.6, 2.NBT.8, 2.NBT.9, 2.MD.2, 2.MD.3, 2.MD.4, 2.MD.6, 3.NF.2, 4.NF.7, 5.NF.5, 5.MD.3, supporting standards: 2.OA.3, 2.OA.4, 2.MD.9, 3.MD.4, 3.G.1,5.MD.2, additional standards: 2.G.2, 3.NBT.3, 4.MD.5, 4.MD.7, 5.OA.2, 5.OA.3, and 5.G.4).	NWEA does not weight our tests based on PARCC's "major" standard designation. The items presented to a student in any given test event are determined by the individual student's achievement level and by the test's goal structure. Goal structures are test frameworks that group all assessable standards into goal areas that represent content domains and sub-goals that represent common groupings of grade level expectations that cover related topics along the learning continuum within each standard. Each student is administered a balanced number of items in each goal area to estimate an overall score and goal scores. Because MAP tests are adaptive and designed to provide data about students across the

[13] Refer also to criterion #1 in K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013) and criterion #1 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/COMMENTS WITH EXAMPLES	PUBLISHER COMMENTS
☐ Yes ☒ No ***As applicable to the grade level assessment being reviewed.**			Approximately 44% of the total points in Grade 2 align to major work of the grade. Approximately 79% of the total points in Grade 3 align to major work of the grade. Approximately 57% of the total points in Grade 4 align to major work of the grade. Approximately 77% of the total points in Grade 5 align to major work of the grade.	achievement continuum--including students who are performing below level or above level--the item pools that support these tests are very large and include items that may range in complexity from the most basic "building block" aspect of a skill to analytical or evaluative aspects of the skill.
	FOR HIGH SCHOOL ONLY **For high school**, aligned assessments or sets of assessments **meet or exceed** the following score-point distribution: • 50% of the total points in high school align to content of Common Core State Standards identified as widely applicable prerequisites for a range of college majors, postsecondary programs, and careers.[14]	**N/A**		
Non-Negotiable 3. FOCUS IN K–8: No item assesses topics directly or indirectly before they are introduced in the CCSSM.[15] *This criterion applies to fixed form or CAT assessments, whether a summative assessment or a set of interim/benchmark assessments. All Items also should reflect the metric.* ☐ Yes ☒ No	90% of items on an assessment address only knowledge of topics found in the CCSSM in the specified grade level. Commonly misaligned topics include, but are not limited to: • **Probability,** including chance, likely outcomes, probability models**.** (Introduced in the CCSSM in grade 7) • **Statistical distributions**, including center, variation, clumping, outliers, mean, median, mode, range, quartiles; and **statistical association or trends**, including two-way tables, bivariate measurement data, scatter plots, trend line, line of best fit, correlation. (Introduced in the CCSSM in grades 6–8; see CCSSM for specific expectations by grade level.) • **Similarity, congruence, or geometric transformations.** (Introduced in the CCSSM in grade 8) • **Symmetry** of shapes, including line/reflection symmetry, rotational symmetry. (Introduced in the CCSSM in grade 4**).**	**No**	Progression within the assessment was based on the student's ability level; therefore, the student may or may not be working on grade level material. 87% of the items in the overall set address only knowledge of topics found in the 2-5 CCSSM. The remaining items addressed standards outside of grades 2-5. Some individual items assess topics before the specified grade level. For example, one item examined requires students to identify a parallelogram. This item is aligned to 2.G.A.1, but this concept is a fourth grade concept.	Again, the NWEA MAP assessments are designed to assess students where they are, regardless of grade level. The CCSS-aligned MAP for Mathematics test has items aligned to some of the CCSS standards below grade 2 and above grade 5. This way, if a student is performing below second grade or above fifth grade, the test can identify those specific skills and concepts. The CCSS-aligned MAP for Mathematics test may include items that assess probability, statistical distribution, similarity, congruence, transformations, or symmetry. However, those items will only be seen by students potentially performing above grade level.

[14] Refer also to page 8 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[15] Refer also to criterion #2 in the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/COMMENTS WITH EXAMPLES	PUBLISHER COMMENTS
SECTION II: Balance: Submissions must meet Rigor and Balance criterion in order for the review to continue.				
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.[16] *This criterion applies to fixed form or CAT assessments, whether summative assessments or a set of interim/benchmark assessments. Item banks also should reflect the proportions in the metrics.* ☐ 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 of key mathematical concepts, especially where called for in specific content standards or cluster headings.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.	

	4b) ***For Procedural Skill and Fluency:***
	• ***K–6:*** At least 20% of the score-points on the assessment(s) for each grade explicitly assess procedural skill and fluency requirements in the Standards.
	• ***7–8 and High School:*** At least 20% of the score-points on the assessment(s) for each grade or course explicitly assess procedural skill and fluency/culminating standards.
	  • Grade 7: 7.EE.3, 7.EE.4, 7.NS.1
	  • Grade 8: 8.EE.7, 8.G.9
	High School: See PARCC Model Content Frameworks, pages 46, 49, 53, 54
		Not Evaluated	This section was not evaluated because the non-negotiable criteria were not met.	

	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.	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.	
	4d) ***Grades 3-High School***: PARCC Type II and Type III Performance-Based Tasks [17] • At least two items on each assessment for each grade or course align with PARCC's Type II (Subclaim C) Evidence Statements. One item is a 3-point item and the second a 4-point item. A rubric for	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.	

[16] Refer also to criterion #4 in the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013) and criterion #2 in the High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[17] See page 2 of PARCC's Evidence Tables - High Level Overview and the PBA Evidence tables for each grade. An example of a Subclaim C evidence staement is 4.C.2. An example of a Subclaim D evidence statement is 4.D.1. To view PARCC's prototype Type II and Type III items, go to http://www.parcconline.org/samples/mathematics/grade-4-mathematics.

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	hand scoring any part of an item that cannot be machine scored is provided. At least two items on each assessment for each grade or course align with PARCC's Type III (Subclaim D) Evidence Statements. One item is a 3-point item and the second a 6-point item. A rubric for hand scoring any part of an item that cannot be machine scored is provided.			
SECTION III: ADDITIONAL INDICATORS 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.[18]		**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.	
6. Assessing Supporting Content. Assessment of supporting content enhances focus and coherence simultaneously by engaging students in the major work of the grade or course.[19]		**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.	
7. Addressing Every Standard for Mathematical Practice. Every Standard for Mathematical Practice is represented on the assessment(s) for each grade or course.		**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.	
8. Expressing Mathematical Reasoning. There are sufficiently many points on the assessment(s) for each grade or course that explicitly assess expressing and/or communicating mathematical reasoning.		**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.	
9. 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.	
10. Calling for Variety in Student Work. Items 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, diagrams, mathematical models, etc.[20]		**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.	
11. 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.	

[18] Refer also to criterion #7 in the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013) and criteria #5 High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[19] Refer also to criterion #3 in the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013).
[20] Refer also to criterion #9 in the K–8 Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013) and criteria #7 High School Publishers' Criteria for the CCSSM (Spring 2013).

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/COMMENTS WITH EXAMPLES	PUBLISHER COMMENTS
FINAL EVALUATION ***Tier 1 ratings*** receive a "Yes" in Column 1 for Criteria 1 – 3, a "Yes" in Column 1 for Criteria 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 – 3), a "Yes" in Column 1 for Criteria 4, but at least one "No" for additional indicators 5 – 11. ***Tier 3 ratings*** receive a "No" in Column 1 for at least criteria in Section I or Section II.				
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**	Provided content is not fully aligned with CCSS. Not all standards are addressed in the provided content, therefore progressions were hard to establish. Progressions within each standard are not fully developed and some standards address only basic concepts of the standard. All levels of content hierarchy and cluster headings are not addressed. The appropriate number system is used for the grade level.	The item pool for the CCSS-aligned MAP for Mathematics test has approximately 3,000 total items. The items in the CCSS-aligned MAP assessments have been hand aligned to the standards by NWEA Content Specialists, all of whom have expert knowledge of the standards and regularly participate in professional development about the standards to maintain this knowledge. An external alignment study carried out by WestEd on a representative sample of MAP for Reading, Language Usage, and Mathematics assessment items in 2012 provided further validation of alignment to the CCSS. The items identified in the reviewer comments represent a very small subset of our entire CCSS-aligned item pool. Many of these comments point out the fact that an item does not address the entire standard to which it is aligned. NWEA items only assess one concept or skill per item. This ensures that the item's calibrated RIT score accurately reflects the level of the skill or concept assessed by the item. The items submitted to the Louisiana Department of Education for review were from simulated test events. Because MAP tests select items based on an individual student's performance on the test, the simulated test events did not include items aligned to all of the CCSS K-5 mathematics standards. However, this does not mean that NWEA does not have items aligned to those standards. We have items aligned to the majority of the standards. Any

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/COMMENTS WITH EXAMPLES	PUBLISHER COMMENTS
				standard for which we do not have items, we are either in the process of acquiring items for those standards or are waiting until we have specific technology enhanced item capabilities before acquiring items for those standards. Further, even if a student does not see an item aligned to a particular standard, the NWEA RIT scores still provide educators with a very accurate estimate of whether a student is developing understanding of the skills in the standard or has a strong understanding of the skills in all of the standards assessed regardless of whether a student actually answers an item aligned to that standard. The Learning Continuum reports that accompany MAP assessments provide these data to educators. Although our RIT scores provide estimates of student ability, they are proven to be extremely reliable. A MAP test takes approximately 45-50 minutes to complete, meaning that educators can get an accurate snapshot of a student's math, reading, and language usage ability in approximately 2 hours and 15 minutes.
	2. Focus on Major Work	**No**	Although it varied by grade-level, overall there was a lack of focus on major work.	NWEA does not weight our tests based on PARCC's "major" standard designation. The items presented to a student in any given test event are determined by the individual student's achievement level and by the test's goal structure. Goal structures are test frameworks that group all assessable standards into goal areas that represent content domains and sub-goals that represent common groupings of grade level expectations that cover related topics along the learning continuum within each standard. Each student is administered a balanced number of items in each goal area to estimate an overall score and goal scores. Because MAP tests are adaptive and designed to provide data about students across the achievement continuum – including students who are performing below level or above level – the item pools that support these tests are very large and include items that may range in complexity from the

CRITERIA	INDICATORS OF SUPERIOR QUALITY	MEETS METRICS (Yes/No)	JUSTIFICATION/COMMENTS WITH EXAMPLES	PUBLISHER COMMENTS
				most basic "building block" aspect of a skill to analytical or evaluative aspects of the skill.
	3. Focus in K-8	**No**	87% of the items address only knowledge of topics found in the 2-5 CCSSM. The remaining items addressed standards from grades outside of grades 2-5.	The NWEA MAP assessments are designed to assess students where they are, regardless of grade level. The CCSS-aligned MAP for Mathematics test has items aligned to some of the CCSS standards below grade 2 and above grade 5. This way, if a student is performing below second grade or above fifth grade, the test can identify those specific skills and concepts. The CCSS-aligned MAP for Mathematics test may include items that assess probability, statistical distribution, similarity, congruence, transformations, or symmetry. However, those items will only be seen by students potentially performing above grade level.
II. Balance	4. Rigor and Balance	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.	
III: Additional Indicators of Quality	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.	
	7. Addressing Every Standard for Mathematical Practice	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.	
	8. Expressing Mathematical Reasoning	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.	
	9. Constructing Forms Without Cueing Solution Processes	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.	
	10. Calling for Variety in Student Work	**Not Evaluated**	This section was not evaluated because the non-negotiable criteria were not met.	
	11. Quality Materials	**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 II.

Public Comments

There were no public comments submitted.