Lowman Education, LLC

Supplemental English Mathematics, 4
4th Grade Math

MATERIAL TYPE	ISBN	FORMAT	ADAPTIVE/STATIC
Supplemental	**9781967218691**	**Digital**	**Static**

Rating Overview

TEKS SCORE	TEKS BREAKOUTS ATTEMPTED	ERROR CORRECTIONS (IMRA Reviewers)	SUITABILITY NONCOMPLIANCE	SUITABILITY EXCELLENCE	PUBLIC FEEDBACK (COUNT)
100%	1	0	Flags Not in Report	Not Applicable	0

Quality Rubric Section

RUBRIC SECTION	RAW SCORE	PERCENTAGE
1. Intentional Instructional Design	13 out of 23	57%
2. Progress Monitoring	12 out of 20	60%
3. Supports for All Learners	35 out of 36	97%
4. Depth and Coherence of Key Concepts	11 out of 16	69%
5. Balance of Conceptual and Procedural Understanding	37 out of 38	97%
6. Productive Struggle	18 out of 19	95%

Breakdown by Suitability Noncompliance and Excellence Categories

SUITABILITY NONCOMPLIANCE FLAGS BY CATEGORY	IMRA REVIEWERS	PUBLIC	Flags NOT Addressed by November Vote
1. Prohibition on Common Core	0	0	0
2. Alignment with Public Education's Constitutional Goal	0	0	0
3. Parental Rights and Responsibilities	0	0	0
4. Prohibition on Forced Political Activity	0	0	0
5. Protecting Children's Innocence	0	0	0
6. Promoting Sexual Risk Avoidance	0	0	0
7. Compliance with the Children's Internet Protection Act (CIPA)	0	0	0

SUITABILITY EXCELLENCE FLAGS BY CATEGORY	IMRA REVIEWERS
Category 2: Alignment with Public Education's Constitutional Goal	0
Category 6: Promoting Sexual Risk Avoidance	0

IMRA Quality Report

1. Intentional Instructional Design

Materials support educators in effective implementation through intentional course and lesson-level design.

1.1 Course-Level Design

GUIDANCE	SCORE SUMMARY	RAW SCORE
1.1a	The materials do not include an alignment guide outlining the TEKS, ELPS, and concepts covered, with a rationale for learning paths across grade levels (vertical alignment) and within the same grade level (horizontal alignment) as designed in the materials.	0/5
1.1b	The materials do not include an implementation guide with usage recommendations and strategies for effective educator use in various contexts, such as just-in-time supports, advanced learning, or as a course.	0/3
1.1c	The materials do not include a TEKS correlation guide with recommended skill entry points based on diagnostic assessment results.	0/2
1.1d	All criteria for guidance met.	2/2
1.1e	All criteria for guidance met.	2/2
—	**TOTAL**	4/14

1.1a – Materials include an alignment guide outlining the TEKS, ELPS, and concepts covered, with a rationale for learning paths across grade levels (vertical alignment) and within the same grade level (horizontal alignment) as designed in the materials.

The materials do not provide alignment guides outlining the Texas Essential Knowledge and Skills (TEKS) or the English Language Proficiency Standards (ELPS). The materials do not provide an alignment guide outlining the concepts covered in the grade 4 platform. The materials do not provide rationales for learning paths across grade levels or within the same grade level.

1.1b – Materials include an implementation guide with usage recommendations and strategies for effective educator use in various contexts, such as just-in-time supports, advanced learning, or as a course.

The materials do not include an implementation guide for the suggested use of materials. The materials do not provide usage recommendations or any guidance supports to assist in adapting materials to meet student needs in various contexts.

The materials do not include strategies for effective educator practices to adapt to different classroom settings, such as just-in-time supports, advanced learning, or as a course.

1.1c – Materials include a TEKS correlation guide with recommended skill entry points based on diagnostic assessment results.

The materials do not include a TEKS correlation guide to assist educators in identifying focus skills. The materials do not include a TEKS correlation guide or evidence of diagnostic assessments to determine skill entry points. The materials approach concept instruction within units in isolation, with no evidence of adaptive skill entry points.

1.1d – Materials include protocols with corresponding guidance for unit and lesson internalization.

The materials include an implementation protocol guide that provides unit and lesson internalization with educator guidance to use them. The materials include protocols for teacher guidance to use with the product during unit internalization. This protocol document "supports teachers in preparing to teach each unit or lesson by helping them internalize what mathematical concepts and skills students will be learning, how mastery will be assessed, and how each lesson builds toward essential TEKS outcomes."

The materials include four steps to guide the teacher for lesson internalization. Teachers understand the lesson objective and instructional goal, examine the lesson structure and timing, plan for instruction and student support, and organize materials and tools.

1.1e – Materials include resources and guidance for instructional leaders to support educators with implementing the materials as designed.

The materials include resources, such as the "Instructional Leader Observation Tool—Guide," that strengthen teachers' ability to implement the curriculum as designed.

The materials include an "Instructional Leader Observation Tool—Guide" with educator guidance for using the observational tool, pre-observation preparation steps, and a section-by-section guide for using the "Instructional Leader Observation Tool."

The materials include an "Instructional Leader Observational Tool" that incorporates instructional look-fors before and during the lesson, and for supporting diverse learners. There is space for post-observational notes that include areas of strength, areas for growth, and next steps.

1.2 Lesson-Level Design

GUIDANCE	SCORE SUMMARY	RAW SCORE
1.2a	All criteria for guidance met.	7/7
1.2b	This guidance is not applicable to the program.	N/A
1.2c	All criteria for guidance met.	2/2
—	**TOTAL**	9/9

1.2a – If designed to be static, materials include detailed lesson plans with learning objectives, teacher and student materials, lesson components with suggested timeframes, and assessment resources aligned with the TEKS and ELPS.

The materials include detailed lesson plans and assessment resources that outline and connect the ELPS for teachers. The materials include instructional guidance for teachers, including lesson components such as using a 5E model, Concrete-Representational-Abstract approach, and Universal Design for Learning. Time frames for various parts of the lesson, such as the Hook and Guided Practice, are listed for easy reference. The materials include informal assessment resources for students, such as Pick 4 Essays, which feature lesson titles that reference the concept being addressed in relation to the TEKS.

1.2b – If designed to be adaptive, materials include detailed lesson overviews with learning objectives, lesson components with suggested timeframes, and assessment resources aligned with the TEKS and ELPS.

This guidance is not applicable because the program is not designed to be adaptive.

1.2c – Materials contain support for families in Spanish and English for each unit, with suggestions on supporting the progress of their student(s).

The materials include a "Family Letter" in English and Spanish for each unit, outlining the unit's content, purpose, and ways families can support learning at home. The "Family Letter" reinforces in-class learning with at-home support suggestions, such as reviewing homework at night and incorporating math into everyday life.

2. Progress Monitoring

Materials support educators in effective implementation through frequent, strategic opportunities to monitor and respond to student progress.

2.1 Instructional Assessments

GUIDANCE	SCORE SUMMARY	RAW SCORE
2.1a	The materials do not include the definition and intended purpose of the types of instructional assessments.	0/2
2.1b	All criteria for guidance met.	2/2
2.1c	Digital assessments do not include text-to-speech, content and language supports, and calculators that educators can enable or disable to support individual students.	Not Scored
2.1d	The materials do not include diagnostic assessments with TEKS-aligned tasks and questions, and there are no interactive item types with varying complexity levels.	0/4
2.1e	All criteria for guidance met.	4/4
—	**TOTAL**	6/12

2.1a – Materials include the definition and intended purpose for the types of instructional assessments.

The materials do not include a course overview for grade 4. Due to the absence of resources, there are neither definitions for instructional assessments nor identification of intended purposes for types of instructional assessments.

The grade 4 unit tests serve as an instructional assessment; however, the materials do not provide a definition or intended purpose for these assessments. There are no resources to define the purpose of informing instruction, identifying misconceptions, gauging progress, guiding instructional decisions, or helping students adjust to learning.

The materials include an exit pass for each lesson, which allows students to reflect and show evidence of daily learning. However, the materials do not provide a definition of the type of instructional assessment or its intended purpose.

2.1b – Materials include guidance to ensure consistent and accurate administration of instructional assessments.

The materials include guidance for instructors, time limit specifications, and scripts, which may positively impact consistency and accuracy in administration.

The grade 4 instructional assessments include scripts on how to administer the unit tests to students. For example, the materials state, "Please take out your pencil and scratch paper. Make sure everything else is put away. You will have 50 minutes to complete this test. I will let you know when you are halfway through and when there are 10 minutes left."

The materials include suggestions for the time allotted to complete the assessment, as well as recommendations for breaking apart extended assessments across days or class periods. For example, the Time Management section of the "Unit Test Administration Guide" includes the guidance: "For assessments longer than 45 minutes, consider splitting the test over two class sessions with clear instructions for pausing."

2.1c – Digital assessments include printable versions and accommodations, including text-to-speech, content and language supports, and calculators, that educators can enable or disable to support individual students.

This is a static program that includes printable assessments. Assessments are not designed to be digital assessments. They do not include digital accommodations such as text-to-speech, content and language supports, and calculators, that educators can enable or disable to support individual students.

2.1d – Materials include diagnostic assessments with TEKS-aligned tasks or questions, including interactive item types with varying complexity levels.

The materials do not include diagnostic assessments, so they do not align tasks or questions to the TEKS, and do not offer varying complexity levels. The materials do not include a diagnostic assessment for grade 4, nor do they include interactive question types or tasks, such as inline choice, hot spot, drag-and-drop, fraction models, text entry, number lines, or multiselect questions. The materials do not include a diagnostic assessment for grade 4. There are no questions or tasks with varying levels of complexity, such as basic recall to application, reasoning, and higher-order skills.

2.1e – Materials include a variety of formative assessments with TEKS-aligned tasks or questions, including interactive item types with varying complexity levels.

The materials include formative assessments with interactive item type questions or tasks, such as text entry, multiple choice, and multiselect.

The materials include a variety of formative assessments, such as student assignments and exit passes. These assessments provide questions with at least two levels of complexity. For example, the exit pass in Unit 5 asks students to apply a skill to determine if the strip diagram is represented correctly, and the materials continue in complexity by asking the student to justify the answer with the prompt "because."

The materials include formative assessments with TEKS-aligned tasks and questions with more than two levels of complexity. For example, each exit pass has one problem-solving task and a prompt to write the

explanation of the solution. Throughout the unit, students complete multiple exit pass assessments that require them to recall, understand, apply, analyze, evaluate, and create.

2.2 Data Analysis and Progress Monitoring

GUIDANCE	SCORE SUMMARY	RAW SCORE
2.2a	Instructional assessments do not include a rationale for each correct and incorrect response.	1/3
2.2b	All criteria for guidance met.	1/1
2.2c	All criteria for guidance met.	2/2
2.2d	All criteria for guidance met.	2/2
2.2e	This guidance is not applicable to the program.	N/A
—	**TOTAL**	6/8

2.2a – Instructional assessments include scoring information and guidance for interpreting student performance, including rationale for each correct and incorrect response.

The grade 4 materials do not include a rationale for each correct and incorrect response in instructional assessments.

The materials include exit passes and Pick 4 Essays as formative assessments, but they do not include rationales for correct or incorrect responses.

The "Unit Test Administration Guide" includes a section on Reporting and Reflection. This advises the teacher to use the "Unit Test Progress Monitoring Guide" to track and identify trends in student understanding and areas for re-teaching.

2.2b – Materials provide guidance for the use of included tasks and activities to respond to student trends in performance on assessments.

The grade 4 materials include a "Unit Test Progress Monitoring" document for teachers to color-code correct and incorrect responses for data tracking.

The materials provide educators with guidance on how to use the "Unit Test Progress Monitoring" document to prioritize based on readiness TEKS, adjust instruction, form targeted small groups, and provide re-teaching or enrichment opportunities.

Unit Test Keys provide a table with a column for each question, answer, primary standard, and readiness or supporting standard. The key includes a copy of the test with the correct answer choice highlighted for each question. This is used in conjunction with the guide to support data-driven re-teaching.

2.2c – Materials include tools for teachers to track student progress and growth, and tools for students to track their own progress and growth.

The materials contain tools for teachers or students to track progress and growth. A "Student Unit Test Tracker" provides a document for teachers and students to track progress and growth, allowing teachers to provide timely interventions and instructional adjustments.

The grade 4 materials include answer keys for assessments, as well as a "Unit Test Progress Monitoring" document for teachers to use for color-coding and tracking student results to monitor progress and growth.

The materials include an accompanying guide that instructs teachers on how to use the document. For example, "after scoring each unit test, enter student responses or scores for each question into the tracker." Teachers then "highlight or mark correct/incorrect responses using a consistent color-coding system."

2.2d – If designed to be static, materials provide prompts and guidance to support educators in conducting frequent checks for understanding at key points throughout each lesson or activity.

The materials include exit passes, activities, and unit quizzes, and provide teacher guidance for checks for understanding during the lesson activity and lesson exit pass. In the Guided Instruction section of the lesson, the “Checks for Understanding and Explanatory Feedback” prompt the teacher to check for understanding at key points throughout each lesson.

Exit passes encourage students to explain their thought processes and demonstrate understanding at the end of the lesson. The materials include guidance for educators on scaffolding or re-teaching strategies to use when students show limited understanding of concepts.

2.2e – If designed to be adaptive, materials provide frequent checks for understanding at key points throughout each lesson or activity.

This guidance is not applicable because the program is not designed to be adaptive.

3. Supports for All Learners

Materials support educators in reaching all learners through design focused on engagement, representation, and action/expression for learner variability.

3.1 Differentiation and Scaffolds

GUIDANCE	SCORE SUMMARY	RAW SCORE
3.1a	All criteria for guidance met.	1/1
3.1b	All criteria for guidance met.	4/4
3.1c	Materials do not address above-grade-level skills and concepts.	1/2
3.1d	Digital materials do not include accommodations, including text-to-speech, content and language supports, or calculators, that educators can enable or disable to support individual students.	Not Scored
3.1e	All criteria for guidance met.	2/2
—	**TOTAL**	8/9

3.1a – Materials include explicit educator guidance for lessons or activities scaffolded for students who have not yet reached proficiency in prerequisite or grade-level concepts and skills.

The grade 4 materials include explicit educator guidance for lessons and activities scaffolded for students who have not yet reached proficiency. For example, in Unit 1, guidance is given for Tier 2 support to "Use the mat as a graphic organizer and the task cards to target specific misconceptions, such as identifying the correct benchmark numbers or plotting on the number line."

The materials include educator guidance for activities such as assigning Number Line Mats based on students' specific math needs.

In Unit 1, students complete a Spiral Review where the following guidance is given: "If students struggle to name the value of underlined digits, provide a place value chart for them to reference, as this is a critical prerequisite for today's lesson."

3.1b – Materials include explicit educator guidance for language supports, including pre-teaching and embedded supports for developing academic vocabulary and unfamiliar references in text.

The materials provide explicit educator guidance for pre-teaching academic vocabulary, including word walls, cognates, visual aids, flashcards, and visual dictionaries.

The materials provide strategies for teachers to embed academic vocabulary instruction throughout lessons, such as partner discussions and structured use of academic language. However, the materials do not provide explicit educator guidance regarding embedded supports for unfamiliar references in text.

The materials include sentence stems such as "I classified _____ as a fixed expense because . . ." to give guidance to support student understanding of unfamiliar references in the text.

3.1c – Materials include explicit educator guidance for enrichment and extension activities for students who have demonstrated proficiency in grade-level and above grade-level content and skills.

The materials include guidance to help the teachers identify students who are ready for enrichment or need additional support. The materials include prompts and ideas for extending learning beyond the immediate lesson goals, but they do not include guidance for students who have demonstrated above-grade-level proficiency. The materials focus on grade-level content; they do not offer any enrichment or extension activities for advanced learners. Activities and lessons offer no variation for students who have demonstrated mastery of grade-level content and skills.

3.1d – Digital materials include accommodations, including text-to-speech, content and language supports, and calculators that educators can enable or disable to support individual students.

This is a static program that is not designed for digital use. Printable lesson materials do include some language supports for students, and materials can be used with or without calculators as needed.

3.1e – Materials include educator guidance on offering options and supports for students to demonstrate understanding of mathematical concepts in various ways, such as perform, express, and represent.

The grade 4 materials include teacher-facing lesson plans, and there is evidence of educator guidance on offering options for students to demonstrate understanding of mathematical concepts in various ways, such as perform, express, and represent. There is guidance for tailoring tasks to allow students to demonstrate their understanding through multiple methods.

The materials intertwine real-world problems with educator guidance on how to allow students to demonstrate understanding through various formats, such as written explanations or drawing models.

The materials include online components that allow students to demonstrate an understanding of mathematical concepts in various ways. There is evidence of interactive visual models, drawing diagrams, and engagement in problem-solving games.

3.2 Instructional Methods

GUIDANCE	SCORE SUMMARY	RAW SCORE
3.2a	All criteria for guidance met.	5/5
3.2b	All criteria for guidance met.	2/2
3.2c	All criteria for guidance met.	3/3
3.2d	All criteria for guidance met.	2/2
3.2e	All criteria for guidance met.	2/2
—	**TOTAL**	14/14

3.2a – Materials include explicit (direct) prompts and guidance for educators to build knowledge by activating prior knowledge, anchoring big ideas, and highlighting and connecting key patterns, features, and relationships through multiple means of representation.

The materials provide explicit prompts and guidance for educators. The materials guide students in identifying and connecting mathematical patterns through direct questioning and varied representations to build a deeper understanding. Some lessons include activities that activate prior knowledge and emphasize patterns and relationships, and consistently anchor big ideas.

3.2b – If designed to be static, materials include educator guidance for effective lesson delivery and facilitation using various instructional approaches.

The grade 4 materials include lessons with directions and guidance for effective lesson delivery using lesson plans with clear headings for each part of the lesson. They also include step-by-step instructions with bullets and numbered sections within each portion of the lesson, and suggested pacing (in minutes) for each portion.

The materials include guidance for effective lesson delivery using various instructional approaches. The lesson plans suggest a combination of direct instruction to introduce concepts, peer collaboration, guided practice activities, and independent practice.

The materials contain lessons with more than two instructional approaches. For example, Unit 6 includes guidance on a variety of instructional approaches to provide students with multiple opportunities to learn. Students have opportunities for think-pair-share activities, direct teacher modeling, guided independent practice, and group practice.

3.2c – Materials include multi-tiered intervention methods for various types of practice and structures and educator guidance to support effective implementation.

The grade 4 materials include multi-tiered intervention methods for various types of practice with universal supports such as the Universal Anchor Chart Sentence Stems, Small Group Intervention Mat, and intensive concrete support using two-color counters. The materials include suggestions for various instructional structures for each phase of the lesson. For example, in Unit 5, there are opportunities for independent practice, pair collaboration, whole group discussions, and teacher-led small groups.

The materials include educator guidance to support effective implementation of multi-tiered intervention methods. For example, in Unit 5, the materials provide an Intervention Mat and Task Cards for Tier 2 small groups.

3.2d – Materials include enrichment and extension methods that support various forms of engagement, and guidance to support educators in effective implementation.

The materials include Choice Boards for enrichment and extension activities. In Unit 5, the Choice Board objective is "[t]o apply understanding of strip diagrams and equations in more complex, creative, and analytical ways."

The materials include options for differentiation to meet learners' diverse needs, such as challenges for advanced learners and scaffolding for those who require additional support.

The materials include guidance for implementing enrichment and extension methods effectively, along with lesson plans that provide opportunities for extended learning.

3.2e – Materials include prompts and guidance to support educators in providing timely feedback during lesson delivery.

The grade 4 materials provide guidance to support the educator. For example, in Unit 9, educator guidance prompts circulation during the Spiral Review to check for understanding of measuring angles with a protractor.

The materials provide opportunities for prompts and guidance throughout the lesson to enhance the teacher's ability to deliver timely feedback, improve student engagement, and refine their instructional practices, ultimately leading to more responsive teaching.

The materials include guidance to support educators in providing timely feedback during the lesson. In Unit 9, after prompting the students with specific questions, the Explanatory Feedback section provides the teacher with examples such as "An obtuse angle should be wide open. Let's look at the protractor again. You used the number 30. Find the number 150 on the other scale. If we draw the ray there, will it create a wide, obtuse angle? Yes! That check helps us catch mistakes."

3.3 Support for Emergent Bilingual Students

An emergent bilingual student is a student who is in the process of acquiring English and has another language as the primary language. The term emergent bilingual student replaced the term English learner in the Texas Education Code 29, Subchapter B after the September 1, 2021 update. Some instructional materials still use English language learner or English learner and these terms have been retained in direct quotations and titles.

GUIDANCE	SCORE SUMMARY	RAW SCORE
3.3a	All criteria for guidance met.	4/4
3.3b	This guidance is not applicable to the program.	N/A
3.3c	All criteria for guidance met.	1/1
3.3d	All criteria for guidance met.	8/8
3.3e	This guidance is not applicable to the program.	N/A
—	**TOTAL**	13/13

3.3a – If designed to be static, materials include educator guidance on providing and incorporating linguistic accommodations for all levels of language proficiency [as defined by the English Language Proficiency Standards (ELPS)], which are designed to engage students in using increasingly more academic language.

The grade 4 materials include dedicated sections in the lesson plans for emergent bilingual students, including a table with details about accommodations for levels of language proficiency. The materials include supports that are aligned to the new ELPS proficiency levels to promote access and participation in mathematical discourse. The materials include lessons that are scaffolded and include linguistic accommodations for each lesson component to support emergent bilingual students in using increasing academic language.

3.3b – If designed to be adaptive, materials include embedded linguistic accommodations for all levels of language proficiency [as defined by the English Language Proficiency Standards (ELPS)], which are designed to engage students in using increasingly more academic language.

This guidance is not applicable to the program because it is not designed to be adaptive.

3.3c – Materials include implementation guidance to support educators in effectively using the materials in state-approved bilingual/ESL programs.

The grade 4 materials include a section in the lesson dedicated to specifically addressing linguistic accommodations by ELPS Proficiency Levels. The materials provide embedded guidance for skilled implementation through plans highlighting effective instructional strategies such as using sentence stems

and writing answers in complete sentences with labels. The materials provide accommodations for emergent bilingual students within each lesson plan, such as sentence stems, peer pairing, and bilingual dictionaries.

3.3d – Materials include embedded guidance to support emergent bilingual students in developing academic vocabulary, increasing comprehension, building background knowledge, and making cross-linguistic connections through oral and written discourse.

The grade 4 materials include linguistic accommodations and guidance to develop academic vocabulary through oral and written discourse. For example, in “Multiplication of Whole Numbers,” the materials provide language objectives and the sentence stem, "First, I broke ___ apart into ___ and ___.”

The materials provide suggested scaffolded tasks by ELPS proficiency level. For example, in “Multiplication of Whole Numbers,” the linguistic accommodations for speaking increase in complexity from beginners using single words to advanced learners providing justifications and descriptions.

Lessons include embedded guidance to promote oral and written discourse, cross-linguistic connections, and comprehension strategies essential for language development.

3.3e – If designed for dual language immersion (DLI) programs, materials include resources that outline opportunities to address metalinguistic transfer from English to the partner language.

This guidance is not applicable because the program is not designed for dual language immersion (DLI) programs.

4. Depth and Coherence of Key Concepts

Materials are designed to meet the rigor of the standards while connecting concepts within and across grade levels/courses.

4.1 Depth of Key Concepts

GUIDANCE	SCORE SUMMARY	RAW SCORE
4.1a	All criteria for guidance met.	2/2
4.1b	The materials do not include questions and tasks that increase in rigor and complexity, leading to above-grade-level proficiency in the mathematics TEKS, nor enrichment and extension materials that increase in rigor and complexity, leading to grade-level and above-grade-level proficiency in the mathematics TEKS.	1/4
—	**TOTAL**	3/6

4.1a – Practice opportunities throughout learning pathways (including instructional assessments) require students to demonstrate depth of understanding aligned to the TEKS.

The materials provide practice opportunities in the Unit Worksheets for each lesson. The opportunities require students to demonstrate a depth of understanding at various levels, including application, analysis, and evaluation.

The materials allow students to work through a scaffolded daily progression of division practice opportunities, starting with models for two-digit divisors to four-digit divisors, progressing to partial quotients from two-digit divisors, to standard algorithms, to real-world problems, and finally to interpreting remainders.

The materials include instructional assessments throughout the learning pathways that require students to demonstrate depth of understanding. Exit passes and Pick 4 Essays emphasize the intended level of rigor through real-world applications that are woven into the examples and prompts.

4.1b – Questions and tasks, including enrichment and extension materials, increase in rigor and complexity, leading to grade-level and above grade-level proficiency in the mathematics TEKS.

The materials do not include questions or tasks that increase in rigor and complexity, allowing students to demonstrate above-grade-level proficiency in the mathematics TEKS.

The materials do not include enrichment and extension activities, such as online opportunities or hands-on practice, that increase in rigor to allow for grade-level proficiency or above-grade level proficiency.

The materials use concrete examples and modeling to demonstrate an understanding of numeric concepts. Questions within lessons, assignments, warm-ups, exit passes, and Pick 4 Essays are scaffolded and increase in complexity to allow students to demonstrate understanding and application of grade-level concepts.

4.2 Coherence of Key Concepts

GUIDANCE	SCORE SUMMARY	RAW SCORE
4.2a	All criteria for guidance met.	1/1
4.2b	All criteria for guidance met.	1/1
4.2c	The materials do not demonstrate coherence across lessons and activities by connecting prior knowledge of concepts and procedures to the concepts learned in future grade levels.	2/4
—	**TOTAL**	4/6

4.2a – Materials demonstrate coherence across concepts horizontally within the grade level by connecting patterns, big ideas, and relationships.

The grade 4 materials demonstrate coherence across concepts horizontally within the grade level. For example, the concept of comparing numbers is connected to either whole number or fraction form, expressed in words or symbols.

In the Unit 2 Pick 4 Essay, students are offered the opportunity to describe their understanding of whole numbers and decimals. This unit builds on the concepts of understanding place value skills at the grade 4 level.

In the Unit 2 assignment, concepts are connected within the grade level. Recent tasks review place value from previous learning; today's tasks use a number line and rounding to extend the number concepts and connect skills.

4.2b – Materials demonstrate coherence vertically across concepts and grade bands, including connections from grade K–6, by connecting patterns, big ideas, and relationships.

The materials present topics by revisiting prior concepts. Geometry is carried throughout the materials; a review of the different types of triangles is used when teaching and modeling angles.

The grade 4 materials demonstrate coherence vertically across concepts and grade bands. For example, the materials use the same strategies for comparing fractions based on like numerators and like denominators. This skill is first introduced in grade 3 and then further developed in grade 4.

The materials demonstrate coherence vertically across concepts by connecting patterns and relationships. For example, the big idea of fractions is carried out and expanded throughout the grade-level product. In the grade 4 materials, adding and subtracting fractions are introduced.

4.2c – Materials demonstrate coherence across lessons or activities by connecting students' prior knowledge of concepts and procedures to the mathematical concepts to be learned in the current grade level and future grade levels.

The assignments provide students the opportunity to demonstrate Recent concepts, Today concepts, and All Year concepts. This review and practice allow students to connect prior knowledge of concepts to the current concepts being studied. However, the materials do not include lessons or activities that make connections to concepts to be learned in future grade levels.

The grade 4 materials demonstrate coherence across lessons by connecting students' prior knowledge of concepts. Students use base-ten blocks to build conceptual understanding of multiplying a two-digit number by a two-digit number.

The grade 4 materials demonstrate coherence across lessons by connecting students' prior knowledge of procedures, such as using the partial quotients procedure for solving division.

4.3 Coherence and Variety of Practice

GUIDANCE	SCORE SUMMARY	RAW SCORE
4.3a	All criteria for guidance met.	2/2
4.3b	All criteria for guidance met.	2/2
—	**TOTAL**	4/4

4.3a – Materials provide spaced retrieval opportunities with previously learned skills and concepts across learning pathways.

In the grade 4 materials, there are varied opportunities for spaced retrieval and interleaved practice, allowing students to demonstrate their knowledge of previously learned skills. Within each daily assignment, there are two categories of practice problems: Recent and All Year. In Unit 9, students practice measurement conversions and fraction comparisons interwoven with geometry skills.

The daily lessons in the materials build on concept knowledge within the grade-level content and previously learned skills. For example, in Unit 9, the first day provides teacher instruction about triangles. The following day allows for both guided and independent practice with angles related to triangles.

The materials provide spaced retrieval opportunities with previously learned concepts across learning pathways. For example, the Pick 4 Essays include six prompts. Students select four and write responses to demonstrate their understanding of concepts.

4.3b – Materials provide interleaved practice opportunities with previously learned skills and concepts across learning pathways.

The grade 4 materials provide interleaved practice with previously learned skills across learning pathways. For example, students practice applying the previously learned skills of addition and subtraction to complete an expense table and analyze the findings.

The materials use and model different strategies for division. For example, in Unit 4, lessons start by using box models or pictorial models. Instruction progresses and then models how partial quotients can be used; both methods can be used as ways to solve division problems.

The materials provide interleaved practice opportunities with previously learned concepts by creating a learning pathway that has a scaffolded daily progression of understanding division. Lessons start with models for two-digit divisors to four-digit divisors, then progress to partial quotients from two-digit divisors, standard algorithms, and real-world problems, and finally to interpreting remainders.

5. Balance of Conceptual and Procedural Understanding

Materials are designed to balance conceptual understanding, procedural skills, and fluency.

5.1 Development of Conceptual Understanding

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.1a	All criteria for guidance met.	3/3
5.1b	All criteria for guidance met.	2/2
5.1c	All criteria for guidance met.	1/1
—	**TOTAL**	6/6

5.1a – Questions and tasks provide opportunities for students to interpret, analyze, and evaluate models and representations for mathematical concepts and situations.

The materials include questions and tasks that require students to interpret models and representations for mathematical concepts and situations. Students interpret data shown in stem-and-leaf and dot plots to answer questions.

The grade 4 materials include questions and tasks that require students to analyze models and representations for mathematical concepts and situations. Students analyze number lines to determine fraction-to-decimal relationships and complete missing values.

The materials include questions that allow students to evaluate models and representations for mathematical concepts and situations. For example, in a Pick 4 Essay in Unit 9, students evaluate the math problem: "James thinks that an adult elephant weighs about 100 pounds. Do you think he is correct? Why or why not? Explain."

5.1b – Questions and tasks provide opportunities for students to create concrete models and pictorial representations to represent mathematical situations.

The grade 4 materials provide opportunities to create concrete models of mathematical situations. In Unit 3, the lesson asks students to solve two-digit × two-digit problems by using base ten blocks to model the partial products and find the total product.

The materials provide opportunities for students to create pictorial representations to represent mathematical situations. In Unit 3, students are asked to solve two-digit × two-digit problems using the box method to represent each partial product and then solve for the total product.

In Unit 3, the assignment provides a question to create a pictorial model for multiplication. "Elliot bought 7 packages of crayons. Each pack contained 24 crayons. Use a strip diagram to represent *x*, the total number of crayons Elliot bought. Then solve."

5.1c – Questions and tasks provide opportunities for students to apply conceptual understanding to new problem situations and contexts.

The grade 4 materials include questions and tasks that provide opportunities for students to apply conceptual understanding to new problem situations and contexts. In Unit 5, students extend their understanding of addition and subtraction to solve multistep problems in real-world contexts. For example, "Elena took $10 to the store. She bought a bag of chips for $1, a hamburger for $5, and a soda for $2. Write an equation and use a strip diagram to represent c, the amount of change Elena received."

The Pick 4 Essays allow students to develop a foundation for real-world application, higher-order thinking, and support them in transferring mathematical knowledge to unfamiliar problems. Through conceptual understanding, students develop mental flexibility to understand new situations and make connections. This is demonstrated when a student is asked to write a division problem and then asked to rephrase it as a multiplication problem.

The grade 4 materials include the opportunity for students to apply their understanding to new situations. In the Pick 4 Essay in Unit 3, the student must explain what an array is and how it can be used in multiplication.

5.2 Development of Fluency

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.2a	The materials do not include tasks to develop student automaticity necessary to complete grade-level mathematical tasks.	1/2
5.2b	All criteria for guidance met.	3/3
5.2c	All criteria for guidance met.	3/3
5.2d	All criteria for guidance met.	1/1
—	**TOTAL**	8/9

5.2a – Materials provide tasks that are designed to build student automaticity and fluency necessary to complete grade-level mathematical tasks.

The materials do not include activities, such as timed challenges or drills, that focus on the automaticity of skills necessary to complete grade-level tasks.

The materials provide tasks that build student fluency necessary to complete grade-level tasks. For example, over the course of grade 4, the lessons and assignments have students work with base-ten blocks, number lines, fraction strips, and other representational manipulatives that help students build mathematical fluency. In Unit 3 lessons, students build models using base-ten blocks to solve problems and equations, reinforcing their understanding and fluency.

The grade 4 materials provide opportunities for students to engage with multiple strategies as a means of understanding multidigit multiplication, such as concretely with base-ten blocks, pictorially with area, box and array models, and abstractly with the standard algorithm. This enables students to become fluent in using and applying multidigit multiplication to real-world problems.

5.2b – Materials provide opportunities for students to practice the application of efficient, flexible, and accurate mathematical procedures throughout learning pathways.

The grade 4 materials include opportunities for students to apply accurate procedures. In a Unit 2 exit pass, students are presented with information and asked to explain whether it is correct or incorrect. This provides an opportunity for students to reflect on the procedures for determining and defending accuracy. Students complete the sentence stem "The information is _____ because . . ."

The materials provide practice opportunities for efficient mathematical procedures throughout learning pathways. For example, Unit 6 enables students to practice and understand fraction representations through number lines, mixed numbers, and equivalent fractions. Students then efficiently apply the strategies to solve problems.

The materials provide students with opportunities to practice applying flexible procedures. Students use area models, arrays, and the box method to solve for two-digit × two-digit products in Unit 3, and the practice allows students to choose between strategies.

5.2c – Materials provide opportunities for students to evaluate mathematical representations, models, strategies, and solutions for efficiency, flexibility, and accuracy throughout learning pathways.

The materials focus on students arriving at accurate and efficient solutions. For example, in the Guided Practice in a lesson on division of whole numbers, a hint is given to students to use compatible numbers. There is an explanation to reinforce efficiency, such as, "Although 215 properly rounds to 220, when using compatible numbers, we are looking for easier computation. In this case, 215 is also close to 210, which is a number easily divided by 7."

The grade 4 materials engage students in evaluating the accuracy of solutions by identifying and explaining errors in a multiplication algorithm problem. For example, in Unit 3, the exit pass asks students, "What needs to be changed in the equation so that it matches the word problem? Solve the word problem once you fix the equation."

The lessons in the grade 4 materials allow students to evaluate mathematical representations, models, strategies, and solutions for flexibility through learning pathways. In Unit 4, students are presented with the opportunity to share which division strategy they prefer to use and why.

5.2d – Materials contain guidance to support students in selecting increasingly efficient approaches to solve mathematics problems.

The grade 4 materials include multiple approaches for solving mathematical problems, and the instructional guidance helps students choose efficient strategies for problem-solving.

The materials include guidance to support students in selecting a more effective approach to solving mathematical problems. Guidance is provided for small-group or whole-group discussions in which this could occur.

The materials include teacher notes in the lessons that provide prompts to encourage students to consider and apply strategies most appropriate for the problem. For example, in Unit 5, the teacher key includes, "Discuss with students how adding 78 and 109, then subtracting from 250, will produce the same answer but might provide less computation error."

5.3 Balance of Conceptual Understanding and Procedural Fluency

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.3a	All criteria for guidance met.	2/2
5.3b	All criteria for guidance met.	3/3
5.3c	All criteria for guidance met.	6/6
—	**TOTAL**	11/11

5.3a – Materials explicitly state how the conceptual and procedural emphasis of the TEKS are addressed.

The grade 4 materials state how the conceptual and procedural emphases of the TEKS are addressed in units or lessons. Under Lesson Overview, each lesson names the conceptual and procedural goal for the lesson.

The materials provide students with opportunities to engage with conceptual material, such as Guided Practice in Unit 6, where students see the real-world connection between the amount of gas and the fractional distance to a destination.

5.3b – Questions and tasks provide opportunities for students to use concrete models, pictorial representations, and abstract models as required by the TEKS.

The materials use questions and tasks to provide opportunities for students to use concrete models; for example, students use base-ten blocks to model the partial products and find the total product of two-digit × two-digit problems.

The grade 4 materials provide opportunities for students to use pictorial representations as required by the TEKS. In Unit 3, students solve two-digit × two-digit problems using the box method to represent each partial product and then solve for the total product.

Students have the opportunity to use abstract representations in questions and tasks; for example, in Unit 4, students use standard long division to divide.

5.3c – Materials include supports for students in connecting, creating, defining, and explaining concrete and representational models to abstract (symbolic/numeric/algorithmic) concepts, as required by the TEKS.

The materials include a variety of concrete-to-abstract representations for students. For example, Unit 1 introduces decimals with area models and money; students create, define, and connect the concept. The lessons progress toward understanding the relationship between decimals and fractions in Unit 6, and this connects the concrete to the abstract.

In Unit 3, the Guided Practice asks students to connect a representational model using base-ten blocks as a model for 31 × 21 and then solve for the product. The grade 4 materials ask students to create a representation model of an abstract concept in Unit 1. In the lesson, students create decimal models, number lines, and money values as representational models to connect to comparing decimals such as 0.87 and 0.78.

5.4 Development of Academic Mathematical Language

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.4a	All criteria for guidance met.	1/1
5.4b	All criteria for guidance met.	2/2
5.4c	All criteria for guidance met.	1/1
5.4d	All criteria for guidance met.	2/2
5.4e	All criteria for guidance met.	2/2
—	**TOTAL**	8/8

5.4a – Materials provide opportunities for students to develop academic mathematical language using visuals, manipulatives, or other language development strategies.

The materials provide opportunities for students to develop their academic mathematical language during lessons in the Geometry Unit. Students are given a picture representation, a visual representation of the naming convention, and a cloze definition for each word related to points and lines.

In the grade 4 materials, lessons are provided that introduce a topic, such as decimals, with a cloze sentence paragraph. Students are guided to fill in the blanks to develop the mathematical words of decimal, one-tenth, and one-hundredth. Visuals are given to reinforce the meaning of a decimal, one-tenth, and one-hundredth with the placement of the decimal point.

The materials in the exit pass in Unit 3 allow students to demonstrate their understanding of mathematical language and the concept of multiplication. For example, the materials ask, "When a number is multiplied by 10, how does it change?"

5.4b – Materials include embedded educator guidance to scaffold, support, and extend students' use of academic mathematical vocabulary in context when communicating with peers and educators.

The materials include embedded guidance to scaffold and extend academic vocabulary in the form of Think-Alouds, modeling, questioning, and prompting.

The grade 4 materials include embedded educator guidance to support students in mathematical discourse and use of mathematical vocabulary. Each lesson includes "Peer Learning and Mathematical Discourse" guidance with sentence stems and scaffolds for discourse. Additionally, lessons include guidance for linguistic accommodations with guidance by ELPS proficiency level.

5.4c – Materials include embedded guidance to support student application of appropriate mathematical language and academic vocabulary in discourse.

The grade 4 materials include embedded guidance to support student application of appropriate mathematical language and academic vocabulary discourse. For example, in Unit 9, the students complete exit passes by writing their response to questions such as, "What does it mean for dimensions to be congruent?"

The materials include guidance for students to apply their knowledge of math language. Sentence frames, such as "Congruent dimensions are . . ." and "An example is . . ." allow students to access their comprehensible input to communicate their mathematical thinking.

In the exit pass in Unit 3, students are prompted to justify their answers using precise mathematical vocabulary. For example, the prompt provided is, "What is the first step in solving 36 x 29 using partial products and why is this step helpful?"

5.4d – Materials include embedded guidance to facilitate mathematical conversations allowing students to hear, refine, and use math language with peers.

The materials include embedded guidance to support mathematical conversations through encouraging students to use and refine mathematical language.

Each lesson provides teacher guidance for peer to peer discourse under “Peer Learning and Math Discourse.” Materials provide sentence stems and scaffolds to facilitate student discourse. Additionally, linguistic accommodations for listening and speaking are provided by ELPS proficiency level.

5.4e – Materials include embedded guidance to anticipate a variety of student answers including exemplar responses to questions and tasks, including guidance to support and/or redirect inaccurate student responses.

The materials include embedded instructional guidance to help educators anticipate the wide range of student responses that may occur during instruction. Each Teacher Lesson includes a section dedicated to teacher guidance on anticipated misconceptions and explanatory feedback.

The materials include guidance to help teachers recognize and address common misconceptions or partially correct answers that students may offer. The explanatory feedback supports educators in redirecting inaccurate thinking or providing feedback that promotes deeper understanding.

5.5 Process Standards Connection

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.5a	All criteria for guidance met.	1/1
5.5b	All criteria for guidance met.	2/2
5.5c	All criteria for guidance met.	1/1
—	**TOTAL**	4/4

5.5a – TEKS process standards are integrated appropriately into the materials.

The grade 4 lessons provide evidence that the TEKS process standards are integrated appropriately into the materials. For example, Unit 10 addresses TEKS 4.7(C) and tasks students to measure angles using a protractor and identify the angle measurement to the nearest whole number.

In Unit 9, students select the appropriate tool and technique (process) to solve problems involving angle measurement and classification. Students choose protractors to draw angles of a given measurement.

In the grade 4 materials, students work through multiple representations to build their understanding of multidigit multiplication. Students begin by representing a two-digit × two-digit problem using manipulatives (base-ten blocks). Then, students move to representing the base-ten block model pictorially. Students then represent with partial products, and finally, in a standard algorithm format.

5.5b – Materials include a description of how process standards are incorporated and connected throughout the learning pathways.

The materials clearly describe and connect the TEKS process standards throughout the learning pathways using detailed tables in each unit overview. The process standard integration tables explain how students apply mathematics to real-world problems, such as interpreting graphs and analyzing data.

The materials include a description of how process standards are incorporated and connected throughout the learning pathways. The materials include a Process Standard Integration Table in each unit overview. The table lists each process standard and how it is incorporated and connected into the unit.

5.5c – Materials include an overview of the TEKS process standards incorporated into each lesson.

Process standards are specified for each lesson. While the materials provide a brief lesson overview that discusses lesson goals and objectives, teacher lessons do not provide specific guidance on how each process standard connects to tasks that students will complete.

6. Productive Struggle

Materials support students in applying disciplinary practices to productive problem-solving, including explaining and revising their thinking.

6.1 Student Self-Efficacy

GUIDANCE	SCORE SUMMARY	RAW SCORE
6.1a	All criteria for guidance met.	3/3
6.1b	All criteria for guidance met.	3/3
6.1c	The materials do not include opportunities for students to discuss math with peers and/or educators.	2/3
—	**TOTAL**	8/9

6.1a – Materials provide opportunities for students to think mathematically, persevere through solving problems, and to make sense of mathematics.

The materials include opportunities for students to express their ability to think mathematically. For example, the exit pass in Unit 5 explains that cans of food are collected from different grade levels, but some cans are expired and cannot be donated. Students must "Write an equation that represents c, the total number of cans the school donates from the food drive."

The materials include opportunities for students to make sense of mathematics. For example, in the Pick 4 Essay in Unit 7, students respond to the question "What is the relationship between the size of the denominator and the size of the fraction pieces? Explain." For students to respond appropriately, they must make sense of the relationship between the denominator of a fraction and the size of the fraction piece.

The materials include opportunities for students to work through solving problems. The Pick 4 Essay in Unit 4 asks students to "Write a word problem that could match the equation 5,093 + 1,918 × 5 = ?" This prompt requires students to persevere in creating a multistep word problem to determine a specific solution using two different operations.

6.1b – Materials support students in understanding, explaining, and justifying that there can be multiple ways to solve problems and complete tasks.

The materials support students in understanding that there can be multiple ways to solve problems and complete tasks. In Unit 4, students solve two-digit × two-digit multiplication problems by creating base-ten block pictorial models, using the box method, using arrays of rows and columns, partial products, and the standard algorithm. Students build flexibility with their understanding of multidigit multiplication and allow time to internalize their understanding of the standard algorithm.

The materials support students in explaining and justifying multiple ways of solving division problems. For example, the exit pass in Unit 4 asks, "Which strategy do you like to use to divide and why?" The prompt gives the opportunity to reflect on different ways.

The materials support students in justifying that there can be multiple ways to complete tasks. For example, in Unit 2, students create their own table of weekly expenses. Students then justify adjustments to the expenses in order to increase savings.

6.1c – Materials are designed to require students to make sense of mathematics through multiple opportunities for students to do, write about, and discuss math with peers and/or educators.

The materials do not include required opportunities for students to collaborate, discuss, or engage in problem-solving activities with peers or teachers. Educators could customize the lesson to include opportunities, but the materials do not require it through guidance or prompts.

The materials include opportunities to write about mathematics. For example, an exit pass in Unit 6 gives students a task and prompt to generate a written response: "Both models A and B have . . . However, models A and B are different because . . ."

The materials include opportunities for students to make sense of mathematics through doing. In Unit 3, students engage in a hands-on activity using base-ten blocks during the Guided Practice portion of the lesson.

6.2 Facilitating Productive Struggle

GUIDANCE	SCORE SUMMARY	RAW SCORE
6.2a	All criteria for guidance met.	6/6
6.2b	All criteria for guidance met.	4/4
—	**TOTAL**	10/10

6.2a – Materials support educators in guiding students to share and reflect on their problem-solving approaches, including explanations, arguments, and justifications.

The materials include resources that facilitate educators in supporting students to share their problem-solving approaches through arguments and justifications.

The grade 4 materials include student-facing materials that allow students to reflect on their problem-solving approaches. In the weekly Pick 4 Essays in Unit 5, the materials include prompts such as, "How can estimation strategies such as rounding or compatible numbers be used in real life? Explain. What is your favorite strategy for solving division problems? Why?"

The materials include opportunities for students to share their problem-solving approaches through explaining. For example, a Unit 6 exit pass asks students to "Explain how you know that 2/6 is greater than 2/9."

6.2b – Materials include prompts and guidance to support educators in providing explanatory feedback based on student responses and anticipated misconceptions.

The materials consistently offer prompts or instructional guidance to support educators in delivering meaningful and explanatory feedback based on anticipated misconceptions. Answer keys provide correct answers and the materials also include detailed support that helps teachers anticipate a variety of student answers.

The materials provide prompts and guidance to support educators in responding to student responses. For example, all lesson plans include Whole-Class Discussion Questions that prompt teachers to address misconceptions identified in the day's lesson. These include targeted questions designed to engage students in thinking about where and why those misconceptions might occur.