Zearn

Supplemental English Mathematics, 4
Zearn Math for Texas, Grade 4

MATERIAL TYPE	ISBN	FORMAT	ADAPTIVE/STATIC
Supplemental	**9798888683910**	**Both Print and Digital**	**Adaptive**

Rating Overview

TEKS SCORE	TEKS BREAKOUTS ATTEMPTED	ERROR CORRECTIONS (IMRA Reviewers)	SUITABILITY NONCOMPLIANCE	SUITABILITY EXCELLENCE	PUBLIC FEEDBACK (COUNT)
100%	155	6	Flags Not in Report	Not Applicable	0

Quality Rubric Section

RUBRIC SECTION	RAW SCORE	PERCENTAGE
1. Intentional Instructional Design	19 out of 21	90%
2. Progress Monitoring	15 out of 19	79%
3. Supports for All Learners	33 out of 37	89%
4. Depth and Coherence of Key Concepts	16 out of 16	100%
5. Balance of Conceptual and Procedural Understanding	38 out of 38	100%
6. Productive Struggle	19 out of 19	100%

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	All criteria for guidance met.	5/5
1.1b	All criteria for guidance met.	3/3
1.1c	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**	12/14

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 grade 4 "Course Guide" includes an alignment guide outlining each mission's Texas Essential Knowledge and Skills (TEKS) and English Language Proficiency Standards (ELPS); it provides a rationale showing that the sequence builds from foundational place value and arithmetic operations toward advanced concepts in measurement, geometry, fractions, decimals, and data analysis. This sequence supports both conceptual understanding and procedural fluency.

The "Curriculum Overview" presents a structured mission sequence; it begins with place value concepts and progresses through measurement conversions, geometric reasoning, and multi-step problem solving with fractions and decimals. This ordered progression illustrates vertical alignment across missions, helping students build on prior knowledge and prepare for increasingly complex skills.

The adaptive platform progresses students through a sequence of missions and includes explanations of how concepts connect within the grade and across grades. The "Course Guide" states that early work with rounding and multi-digit operations helps students solve problems involving area, fraction equivalence, and data interpretation in later missions. This design supports students in applying their learning to more complex mathematical contexts.

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 "Course Guide" includes an implementation guide outlining pacing, instructional groupings, and digital and small-group instruction strategies. This guide appears in the "Classroom Implementation" section.

The materials recommend that students complete at least three weekly digital lessons. The structure includes fluency, problem-solving, independent practice, and lesson debriefing.

The materials include embedded supports that address student needs, including bilingual learners, students requiring intervention, and those ready for enrichment.

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

The materials do not include a diagnostic assessment to identify student proficiency levels or determine appropriate skill entry points.

The materials do not provide recommended skill entry points based on diagnostic assessment results. While the materials include formative assessments, such as the "Tower of Power" and "Mission-Level Assessments," these tools do not establish initial instructional placement and are not tied to diagnostic data.

The materials follow a fixed mission sequence that begins with place value and multi-digit operations and concludes with decimal comparison, measurement, and data representation. Although reports like the "Pace Report" and "Tower Alerts" offer insight into student progress, they do not provide diagnostic recommendations or support personalized entry points.

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

The materials provide unit-level internalization support in the "Structure of a Mission" section, which outlines each mission's core mathematical goals, prioritizes TEKS, anticipates misconceptions, and defines mission-specific vocabulary.

At the lesson level, the materials offer internalization tools such as "Guided Practice" with embedded teacher prompts, targeted "Fluency Activities" aligned with upcoming content, and "Exit Tickets" designed to reveal common misunderstandings, allowing educators to tailor instruction responsively. The "Course Guide" aids educators in internalizing content by presenting structured summaries that connect lesson

objectives to daily instruction, while highlighting where teachers should focus on modeling strategies, supporting mathematical discourse, and reinforcing conceptual understanding.

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

The "Implementation Playbook" provides a structured four-phase model—Prepare, Launch, Grow, Reflect—that guides instructional leaders through planning, classroom integration, and ongoing implementation support. The "Getting Started with Zearn Math" guide and the "Zearn Math School Implementation Checklist" include pacing guidance for 60-, 75-, and 90-minute math blocks, weekly instructional schedules, and step-by-step onboarding tools to help leaders monitor teacher progress and support implementation milestones. The "Leader Implementation Toolkit," "Zearn Professional Learning Modules," and "Model Lessons and Walkthrough Guides" provide facilitation resources, asynchronous training, and sample lessons to support instructional coaching and professional learning throughout the school year.

1.2 Lesson-Level Design

GUIDANCE	SCORE SUMMARY	RAW SCORE
1.2a	This guidance is not applicable to the program.	N/A
1.2b	All criteria for guidance met.	5/5
1.2c	All criteria for guidance met.	2/2
—	**TOTAL**	7/7

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.

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

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.

The materials include lesson overviews that include TEKS- and ELPS-aligned learning objectives and instructional components, such as guided practice, scaffolded fluency, and independent digital tasks. For instance, a grade 4 lesson helps students represent and compare fractions using models like number lines and area models, aligning with TEKS 4.3D. Additionally, the lesson allows students to discuss how the models represent the size of each fraction using precise mathematical language, supported by sentence stems and visual tools, per ELPS 1.C, 2.E, and 3.E. The "Course Guide" includes lesson overviews with TEKS- and ELPS-aligned objectives, suggested timeframes for teacher-led lesson components, and assessment resources.

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 "Family Tip Sheets" for each mission in English and Spanish. These resources provide overviews of unit goals, introduce academic vocabulary, and offer suggestions, such as guiding questions and home activities. For example, the grade 4 Mission 5 "Family Tip Sheet" includes the question, "How do you know if two fractions are equivalent?" and an activity using number lines to compare fractions.

Each "Family Tip Sheet" includes content that matches the TEKS addressed in the corresponding mission, helping families understand and support the specific grade-level standards.

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	All criteria for guidance met.	2/2
2.1b	All criteria for guidance met.	2/2
2.1c	Materials do not include digital assessments with printable versions and accommodations, including 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 or questions, including interactive item types with varying complexity levels.	0/4
2.1e	All criteria for guidance met.	4/4
—	**TOTAL**	8/12

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

The materials define the types of instructional assessments embedded within each mission, including grade 4 "Course Guide" references to "Lesson Checkpoints," "Tower of Power," "Mission-Level Assessments," and "Selected Response Practice." The grade 4 "Course Guide" states, "throughout each mission, students engage in embedded formative and summative assessments that measure progress, reinforce learning, and identify areas where additional support is needed."

The materials state the intended purpose of each instructional assessment type. They explain that these assessments inform instruction, identify misconceptions, gauge progress, guide instructional decisions, and support educators in making adjustments.

The grade 4 "Course Guide" details that "Lesson Checkpoints" support mastery of essential concepts, while the "Tower of Power" provides scaffolded, mastery-based assessments aligned with the lesson's progression. "Mission-Level Assessments" include open-ended questions scored with a rubric to identify strengths and misconceptions. "Selected Response Practice" items reinforce key mission content and build confidence with item types commonly found on state assessments.

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

The materials include an "End-of-Mission Rubric" that provides clear guidance for scoring student responses. The rubric outlines criteria that help educators evaluate student work accurately, supporting objective evaluation of progress. Including this rubric ensures that scoring reflects student performance against learning goals.

The materials consistently place "Lesson Checkpoints" and the "Tower of Power" at predictable points within the instructional sequence, supporting educators in clearly locating assessments. This consistent placement ensures that scoring aligns with the intended instructional flow, contributing to accurately measuring student learning.

The grade 4 "Course Guide" specifies when to administer assessments, including "Lesson Checkpoints," the "Tower of Power," and "Mid-Mission" and "End-of-Mission" assessments.

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.

The materials do not provide printable versions of the digital assessments.

The materials do not allow educators to enable or disable text-to-speech features within digital assessments for individual students. The materials include text-to-speech and visual representations, but educators cannot enable and disable these features based on individual need.

The materials do not include calculator features or content language supports that educators can adjust to meet the needs of diverse learners.

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

The materials do not provide a diagnostic assessment to identify student needs or inform placement decisions. The "Zearn Help Center" states that *Zearn Math* includes a series of ongoing formative assessments that offer actionable insights for students to understand.

The materials recommend that educators place students in the first-grade-level unit that aligns with the core math curriculum. They do not include a beginning-of-year or end-of-year diagnostic assessment to inform individualized learning plans or support targeted instruction.

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 TEKS-aligned tasks or questions. Tasks include using area models, place value models, strip diagrams, and word problems that apply knowledge of multiplication. Additional tasks include labeling fractions on a diagram, creating a diagram to show fractions, and modeling and representing a fraction as the sum of unit fractions.

The materials include formative assessments with varying levels of complexity, such as using pictorial models to represent and solve multiplication problems, solving problems using the partial product algorithm, pictorial representations to represent word problems and number sentences, and discussing covered concepts.

2.2 Data Analysis and Progress Monitoring

GUIDANCE	SCORE SUMMARY	RAW SCORE
2.2a	All criteria for guidance met.	3/3
2.2b	All criteria for guidance met.	1/1
2.2c	All criteria for guidance met.	2/2
2.2d	This guidance is not applicable to the program.	N/A
2.2e	All criteria for guidance met.	1/1
—	**TOTAL**	7/7

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

The materials include scoring rubrics for the "Mid-Mission Assessment" and "End-of-Mission Assessment" that provide four levels of student performance: Initiating Understanding, Developing Understanding, Nearing Understanding, and Full Understanding. Each level includes descriptions and examples of student work to support the interpretation of student performance.

In grade 4, Mission 5, the "End-of-Mission Assessment" rubric includes examples of student responses aligned to each performance level. For example, the rubric notes that a student who uses a correct model but does not complete the calculation demonstrates Initiating Understanding of fraction operations.

"Selected Response Practice" items include rationales for correct and incorrect responses.

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

The materials include guidance for using assessment reports to identify trends in student understanding and inform instruction. According to the grade 4 "Course Guide," the "Progress Report" provides "an at-a-glance view of lesson completion and Tower of Power success over time." This report enables teachers to monitor long-term progress and identify instructional needs across missions, supporting responsive planning with included tasks and activities.

The materials provide real-time data tools that guide teachers in selecting instructional responses to performance trends. The "Tower Alerts Report" notifies teachers when students miss three or more questions on the "Tower of Power," indicating a breakdown in understanding. The report shows whether students accessed embedded scaffolds and completed the lesson, helping teachers determine when to assign reteaching tasks or revisit key content using a "Math Chat."

The materials link foundational support and small-group lessons to specific assessment results, allowing teachers to address gaps in understanding. The "Tower Alerts Report" identifies the TEKS that a student struggles to master. Teachers can use a small-group lesson on that TEKS in combination with a "Foundational Guidance Lesson" from a previous grade level.

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 provide multiple tools for teachers to monitor student progress and growth. Reports such as the "Class Report," "Curriculum Progress," "Pace and Progress," "Pace Report," "Progress Report," "Tower Alerts," "Sprint Alerts," and "Student Report" support identification of performance trends, tracking of lesson completion, intervention needs, and adjustments to instruction based on student needs.

The materials include a "Tower Report" that allows teachers to monitor student progress on specific TEKS. In addition, paper-based small-group lesson materials include assessment answer keys and recording sheets supporting student performance tracking on targeted standards.

The materials include student-facing tools such as the "Student Lesson Calendar," "Weekly Goal Tracker," and "Challenge Trackers." These tools support tracking digital lesson completion and enrichment activity progress. The "Student Progress Tool" includes guidance for students to monitor weekly digital lesson completion and reflect on progress.

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.

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

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

The materials embed checks for understanding within each lesson through digital feedback, lesson checkpoints, and scaffolded instructional supports. The embedded tools respond to real-time student input, guide corrective pathways, and support content mastery before progression.

The materials include "Mid-Mission Assessments" that evaluate conceptual understanding, reasoning, and problem-solving after several lessons within each mission. The materials provide a rubric to analyze student thinking, identify misconceptions, and inform small-group instruction. These assessments serve as periodic checkpoints at key points in instruction.

Each digital lesson concludes with a "Tower of Power," a scaffolded, mastery-based assessment determining whether students advance in the digital sequence. If students do not advance successfully, the materials deliver immediate support through a scaffolded Boost, followed by a new opportunity to demonstrate understanding. This structure ensures a consistent cycle of checks for understanding across all lessons.

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	The materials do not include explicit educator guidance for enrichment and extension activities for students who have demonstrated proficiency above grade level content and skills.	1/2
3.1d	The materials do not have digital accommodations, such as text-to-speech, content and language supports, or calculators, that educators can enable or disable for individual students.	0/3
3.1e	All criteria for guidance met.	2/2
—	**TOTAL**	8/12

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 materials include explicit educator guidance for supporting students who have not yet reached grade-level proficiency. In Mission 3, the "Teacher Lesson Materials" prompt educators to guide students in using place value disks, area models, and number lines to build understanding of multi-digit multiplication. Teachers use visual models to connect partial products to multiplication strategies and provide prompts that emphasize patterns in the place value system.

The materials provide scaffolded fluency support in Mission 3. The guidance directs teachers to simplify multiplication problems by starting with two-digit by one-digit problems and gradually increasing the difficulty. Educators are encouraged to focus on place value understanding and the use of concrete representations before transitioning to the standard algorithm.

The "Teacher Lesson Materials" include structured, scripted small-group lessons that support conceptual understanding and procedural fluency in multiplication and division. Educators prompt students to solve problems using visual models, such as base-ten blocks and arrays. Sample teacher language includes, "Use base-ten blocks to represent 43. How can you break it apart to multiply by 6?" to reinforce place value reasoning during problem solving.

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 include educator guidance on providing and incorporating linguistic accommodations for all levels of language proficiency as defined by the 2026 ELPS (Pre-Production, Beginning, Intermediate, High-Intermediate, and Advanced). The materials support vocabulary development through contextual use and embedded modeling. In Mission 2, students encounter terms such as *mass* and *liquid volume* through hands-on measurement tasks and teacher-facilitated discussions, and in Mission 5, students say and apply terms such as *mixed numbers* and *equivalent fractions* while working with area models and number lines. The materials provide strategies to reinforce unfamiliar language and clarify meaning during instruction. In Mission 6, lessons guide students in using the term *decima*l while working with metric measurement and money contexts. Additional supports include sentence frames in teacher notes, glossary tools that define academic vocabulary, visual models embedded in tasks, and prompts for structured partner discussion and explanation.

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 enrichment activities that deepen understanding of grade-level content, such as prompting students in Mission 3 to reason about area and perimeter by predicting how changes in side lengths affect measurements, and in Mission 4 to justify angle predictions using visual and verbal reasoning. The materials provide designated enrichment lessons and components for students demonstrating proficiency, including "Multiple Means of Engagement" and "Multiple Means of Representation" tasks that extend lessons on angles, metric conversions, and perpendicular lines through real-world applications and challenge prompts.

Educators can adjust the digital pacing to provide enrichment and extension opportunities for students who have demonstrated above-grade-level proficiency; however, the materials do not provide explicit guidance for educators.

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.

The materials include embedded text-to-speech functionality within Digital Assessments and lessons, but educators cannot enable or disable this support for individual students.

The materials include content and language supports, such as verbal cues and visual scaffolds, available to all students by default. However, the educator cannot selectively assign or manage these supports.

The materials do not provide a digital calculator tool or any other accommodation that educators can enable or disable to meet individual student needs.

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 materials prompt students to compare, decompose, and represent fractional values through flexible activities, such as hands-on station work and fraction-based design tasks. In Mission 5 small-group lessons, teacher materials include guidance for using manipulatives and visual models during concept exploration, allowing students to express their thinking by creating and discussing visual and physical representations of equivalent fractions and mixed numbers.

The materials guide teachers in supporting varied forms of student expression through concrete models, discussion prompts, and drawing tools. In small-group instruction, the "Concept Exploration" and "Lesson Synthesis" sections offer structured opportunities for students to demonstrate their understanding through verbal explanations, drawings, or physical modeling using fraction tiles, number lines, or area models.

The materials support multiple means of action and expression through digital and small-group formats, encouraging students to model math concepts in various ways. For example, students use digital manipulatives in "Guided Practice" and then complete related paper-based Student Notes, reinforcing their understanding through drawing, labeling, and justifying their thinking in writing or discussion.

3.2 Instructional Methods

GUIDANCE	SCORE SUMMARY	RAW SCORE
3.2a	All criteria for guidance met.	5/5
3.2b	This guidance is not applicable to the program.	N/A
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**	12/12

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 include explicit prompts and guidance to activate prior knowledge and anchor big ideas at the start of instruction. In Mission 1, Lesson 2, the teacher materials prompt a review of prior-grade measurement knowledge using number bonds to connect previously learned metric units with word problem strategies. In Mission 6, Lesson 3, teacher guidance builds upon earlier understandings of multiplication and division to introduce algorithms and simplifying strategies for multi-digit computation. These structured supports help transition students from familiar content to grade 4 expectations.

The materials include prompts that highlight and connect key patterns and features through multiple means of representation. A guided digital lesson introduces the standard algorithm for multiplying a four-digit number by a one-digit number using a place value chart alongside the algorithm. As the teacher models regrouping steps, students identify relationships between visual and numeric strategies.

The materials include guidance on connecting key relationships using visual supports, strategic questioning, and multiple representations. In a guided practice lesson on money, the teacher prompts students to compare the coin values and decimals to highlight equivalency (e.g., 1/100 as $0.01). In other lessons, concrete items, expanded form scaffolds, and place value charts help build connections among representations. For example, in area lessons, questions prompt an analysis of the relationship between perimeter and area, specifically the effects of doubling and quadrupling.

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

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

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

The materials include multi-tiered intervention methods across guided, independent, and collaborative practice settings. In Mission 2, the digital sequence comprises the "Learning Lab" for guided instruction and the "Tower of Power" for scaffolded, independent problem-solving. Incorrect responses in the "Tower of Power" trigger a "Boost," which breaks the task into manageable steps and provides immediate support. Small-group activities include teacher scripts for scaffolding area and perimeter concepts, such as drawing and extending incomplete arrays, as well as reviewing multiplication strategies using visual models and place-value supports.

The materials support intervention across instructional structures. Educators use printed lessons in whole-group, small-group, or individual instruction settings.

The "Course Guide" provides guidance for using performance data and instructional tools to deliver targeted support. The "Tower Alerts Report" helps identify students for small-group reteach opportunities. Guidance includes customizing problem contexts, setting individual goals, and adjusting expectations based on student readiness.

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 enrichment and extension strategies that support various forms of engagement. In Mission 4, the "Multiple Means of Engagement" section presents a challenge in which students predict unknown angle measures and justify their reasoning using mathematical language. Additional prompts extend thinking by asking students to apply geometric concepts, such as perpendicularity, to real-world contexts like construction and design.

The materials include real-world applications and cross-disciplinary connections to deepen understanding. In Mission 2, measurement lessons prompt exploration of concrete items found in daily life. The teacher materials include a script for extending discussions around metric conversions and linking terms, such as kilo-, to other contexts, including digital storage.

The "Course Guide" outlines strategies for implementing enrichment and extension opportunities. The materials support educators in using "Digital Bonuses," "Optional Practice Problems," and small-group discussion prompts to extend learning. Suggestions include increasing pacing, highlighting complex problems, and guiding students to engage with content that exceeds grade-level expectations through independent work or reflection.

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

The materials include prompts and guidance to support the delivery of timely feedback during instruction. In Mission 1, the "Concept Exploration" section consists of a prompt such as, "Are you going to use the algorithm or a simplifying strategy to solve?" followed by a prompt for explanation. This questioning structure helps assess understanding and guides real-time instructional feedback.

The materials include embedded digital scaffolds to support immediate feedback. In the "Tower of Power," a "Boost" is triggered when an incorrect answer is selected. The "Boost" breaks the task into smaller steps, helping students reengage with the concept before attempting the problem again.

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	This guidance is not applicable to the program.	N/A
3.3b	All criteria for guidance met.	4/4
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.

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

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.

The materials include linguistic accommodations for all levels of language proficiency as defined by the 2026 ELPS (Pre-Production, Beginning, Intermediate, High-Intermediate, and Advanced).

Zearn digital lessons embed visual models and interactive representations to support students at the Pre-Production and Beginning levels. Sentence frames and structured response prompts appear in teacher notes to guide oral and written expression at the Intermediate and High-Intermediate levels.

Glossary tools define academic vocabulary in context, and teacher materials provide questions that require precise mathematical language, supporting students at the Advanced level.

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

The materials provide educator guidance on implementing the program within state-approved bilingual or ESL instructional models, such as dual language, transitional bilingual, or ESL pull-out programs. The materials include a "Supports for Emergent Bilingual Students" section in the "Course Guide" that provides educators with accommodations and supports for emergent bilingual students.

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 materials include guidance for developing academic vocabulary through oral and written discourse. Supports include sentence frames, partner talk in "Concept Exploration," and bilingual vocabulary notebooks, as described in the "Vocabulary Notebook" and the grade 4 "Course Guide." Instruction supports the use of Spanish cognates, such as *factores* and *producto*, to reinforce conceptual vocabulary.

The materials support comprehension and background knowledge through guided questions and familiar contexts. Lessons in "Concept Exploration" prompt oral explanations of diagrams and written descriptions of strategies, utilizing academic vocabulary. Lesson guidance includes recommendations to substitute culturally unfamiliar terms with accessible alternatives to support comprehension.

The materials embed cross-linguistic connections in oral and written formats. Supports include bilingual glossaries and guidance for previewing vocabulary using visuals. Visuals and language support help connect English math terms with students' home languages, thereby strengthening understanding across various settings.

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	All criteria for guidance met.	4/4
—	**TOTAL**	6/6

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

The materials include practice opportunities through learning pathways that require students to demonstrate a depth of understanding aligned with the TEKS. For example, in grade 4, Mission 2, students practice measurement conversions using tables, number lines, strip diagrams, and algorithms. The "Practice Problems" sections provide additional tasks that include skip counting, place value strategies, strip diagrams, equations, and real-world word problems involving multiplication and division.

The materials include instructional assessments throughout learning pathways that require students to demonstrate a depth of understanding aligned with the TEKS. "Exit Tickets," "Mid-Mission Assessments," and "End-of-Mission Assessments" ask students to apply knowledge from practice tasks to new contexts, including measurement conversions, representing quotients using area models, and applying multiplication strategies with real-world word problems. These assessments guide students from pictorial models and visual representations to the standard algorithm, reinforcing conceptual understanding.

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 include core tasks that progress in rigor and complexity to grade-level proficiency and functions that extend beyond grade-level expectations.

Enrichment and extension activities provide multistep application problems and opportunities to generalize strategies across contexts.

Examples include adaptive digital lessons that increase in difficulty within missions and extension problems in teacher materials that require students to explain reasoning, compare solution strategies, and apply concepts in varied contexts.

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	All criteria for guidance met.	4/4
—	**TOTAL**	6/6

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

The materials include practice opportunities through learning pathways that require students to demonstrate a depth of understanding aligned with the TEKS. For example, in grade 4, Mission 4, Lesson 1, the lesson prompts students to draw points, lines, and rays and identify them in familiar shapes. In Lesson 2, students create right angles using a paper-folding activity and locate right angles in their environment. The "Practice Problems" sections provide additional tasks, including identifying acute, obtuse, and right angles and applying this knowledge to real-world examples involving perpendicular and parallel lines.

The materials include instructional assessments throughout learning pathways that require students to demonstrate a depth of understanding aligned with the TEKS. "Exit Tickets," "Mid-Mission Assessments," and "End-of-Mission Assessments" include tasks such as comparing fractions on a number line, identifying benchmark values, and using divisibility rules and estimation strategies to analyze mathematical relationships.

The assessments reinforce coherence by guiding the progression from concrete representations to abstract reasoning, supporting conceptual understanding, and connecting new learning to previously taught content.

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 do make connections through grade 5. The materials demonstrate vertical coherence by systematically connecting mathematical concepts across grade levels from kindergarten through grade 6. According to the grade 4 "Course Guide," the sequence begins with counting and composing numbers in the early grades and progresses to operations with addition, subtraction, multiplication, and division. Geometry follows a similar trajectory, beginning with shape identification and advancing to classification, measurement, and spatial reasoning. In Mission 3: "Multiply and Divide Big Numbers," students build conceptual understanding and procedural fluency by applying the distributive property and interpreting remainders, laying a foundation for future work with fractions, ratios, and algebraic reasoning.

The materials reinforce vertical alignment through instructional models and scaffolding that link prior grade-level learning to current grade-level objectives. In Mission 1: "Add, Subtract, and Round," the "Math Chat" revisits familiar place value strategies using a place value chart, while Mission 2: "Measure and Solve" references vertically aligned TEKS from grades 2 and 3. These connections support mastery of measurement conversions and multi-digit operations.

The materials support students in developing an understanding of fraction equivalence and operations in Mission 5 by connecting visual models, number lines, and common denominators. Instruction highlights patterns in equivalent fractions and guides students to apply those patterns when adding and subtracting fractions with unlike denominators. These instructional connections deepen conceptual understanding and prepare students for work with decimals.

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 materials in grade 4, Mission 1, build on students' prior knowledge of place value and rounding from grade 3 by extending understanding to numbers up to 1 billion. Instruction deepens students' fluency with standard algorithms for addition and subtraction, which prepares them to apply these procedures when solving multi-step problems involving measurement and data later in the year.

The materials in grade 4, Mission 3, extend procedural fluency by prompting students to transition from visual models to standard algorithms for multi-digit multiplication and division. Students apply their understanding of area and perimeter from previous grades to solve real-world problems, laying the groundwork for proportional reasoning and more complex algebraic thinking in future grades.

The materials in grade 4, Mission 5, connect students' conceptual understanding of parts of a whole from grade 3 to more advanced fraction work. Instruction introduces equivalence, comparison, and the addition and subtraction of fractions and mixed numbers using visual models, establishing a foundation for operations with decimals and proportional reasoning in grade 5.

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.

The materials provide spaced retrieval opportunities by revisiting previously taught skills across lessons and missions. In grade 4, Mission 1, Lesson 1, the "Warm Up" includes a word problem that reviews multiplication using the standard algorithm, while the mission focuses on place value. In later lessons, the "Warm Up" continues to spiral in skip-counting and place value fluency to prepare students for multiplication with larger units.

The materials integrate fluency activities that promote variety and spaced practice through multiple formats. In the "Digital Lessons" for grade 4, Mission 1, students complete activities such as "Make and Break 10" and timed "Sprints" that involve multiplication and division facts with 10, reinforcing foundational number relationships and promoting automaticity.

The materials use small-group instruction and warm-ups to reinforce prior learning and deepen conceptual understanding. In grade 4, Mission 5, the "Teacher Lesson Materials" include fluency activities and concept explorations that revisit fraction equivalence, comparison, and operations. Students build on visual models, such as strip diagrams and number lines, to decompose mixed numbers and use benchmarks, supporting conceptual understanding and procedural fluency through repeated exposure.

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

The materials provide interleaved practice that prompts students to apply previously learned strategies in new contexts across learning pathways. In grade 4, the "Warm Up" in the measurement learning pathway includes word problems that require students to use the standard algorithm and strip diagrams—strategies introduced in Mission 1: "Add, Subtract, and Round"—to solve problems involving metric conversions. This structure reinforces fluency and promotes transfer of understanding between content strands.

The materials incorporate warm-up and fluency activities that revisit previously taught models and representations. In grade 4, Mission 1, Lesson 1, the "Teacher Lesson Materials" include fluency practice using place value charts and arrays to reinforce multiplication and place value strategies. In Mission 3, Lesson 1, students begin with square units to measure perimeter and area before transitioning to

standard algorithmic equations, thereby strengthening their conceptual understanding through varied representations.

The materials integrate ongoing practice with previously taught concepts through real-world tasks and problem-solving routines. In grade 4, Mission 6, students apply their understanding of decimals using area models, number lines, and place-value charts. Lessons progress from connecting fractions to decimals using measurement contexts to applying decimal knowledge to financial literacy topics such as saving and budgeting. Instruction consistently bridges current learning with previously introduced concepts of fractions, place value, and operations.

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 provide opportunities for students to interpret mathematical models using concrete and pictorial tools, such as place value charts, strip diagrams, and area models. For example, in Mission 3, students interpret place value charts and area models during "Math Chat" and "Learning Lab" to understand multi-digit multiplication and determine what the model represents before solving. The materials support students in analyzing visual models by comparing representations and identifying mathematical relationships. Students analyze differences between place value models and the standard algorithm in decimal subtraction lessons. In fraction comparison lessons, students use number lines, benchmarks, and area models to analyze how models show equivalence or relative value. The materials prompt students to evaluate mathematical representations to assess their accuracy and reason through their effectiveness. Students evaluate the efficiency of different strategies for comparing fractions, identify patterns within expanded notation, and explain how models, such as strip diagrams and place-value charts, demonstrate equivalence or support problem-solving.

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

The materials enable students to construct concrete models using manipulatives, such as base-ten blocks, place-value disks, and square tiles, to support their conceptual understanding of multi-digit multiplication and area. For example, in Mission 3, Lesson 6, students use base-ten blocks to represent the factors in a multiplication problem and organize them into rectangular arrays. The "Teacher Lesson Materials" prompt educators to ask, "How does this model show tens and ones?" and "How can you use the blocks to find the total product?" to help students connect physical models to partial products.

The materials include tasks that guide students in creating pictorial representations, such as drawing number bonds, strip diagrams, lines of symmetry, and place-value models, to show relationships and solve problems.

The instructional materials include lessons that explicitly connect concrete and pictorial models, such as fraction and decimal lessons, where students build quantities with disks, fold paper strips, and then represent their thinking with drawings, labels, or structured charts.

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

The materials provide opportunities for students to apply conceptual understanding to real-world financial contexts, such as calculating profit from lemonade sales and solving multi-step word problems involving mass, volume, and metric conversions.

The materials include word problems that connect conceptual understanding to everyday experiences, such as solving for the area and perimeter of a fenced yard, comparing bakery production quantities, and scripting multiplication strategies with partners.

The materials guide students in applying concepts to new problem situations through open-ended tasks and data interpretation, such as decomposing prisms to test volume rules, modeling mixed numbers in measurement scenarios, and identifying patterns in expanded place-value charts.

5.2 Development of Fluency

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.2a	All criteria for guidance met.	2/2
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**	9/9

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

The materials include tasks designed to build automaticity and fluency necessary for completing grade-level mathematical tasks. In Mission 1, Lesson 8, the "Fluency Practice" section consists of a timed "Multiplication-By Pattern Sheet," where students complete multiplication facts within a two-minute window. The teacher materials prompt the use of skip-counting strategies to support fact recall. This structured and repeated practice builds fluency with multiplication facts involving larger factors, supporting readiness for multi-digit operations.

The materials include sequenced fluency routines that connect number patterns to multiplication and place-value concepts. In Mission 4, students engage in fluency tasks involving units of ten, hundred, and one thousand, building efficient strategies for multiplying and dividing whole numbers by powers of ten.

The Course Guide lists additional fluency-building activities such as "Sprints," "Totally Times," and "Fraction Action." These digital features appear throughout lessons, providing repeated, targeted practice to reinforce fluency with foundational number operations.

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

The materials provide opportunities to practice efficient, flexible, and accurate mathematical procedures throughout learning pathways. The materials include lessons that guide the use of multiple strategies to solve multi-digit multiplication problems, such as area models, partial products, and the standard algorithm. The materials prompt students to explain which approach they used and why they selected it, supporting the development of procedural flexibility and efficiency. The materials include estimation tasks to support strategic thinking in multi-digit addition and subtraction. Students round numbers to the nearest ten, hundred, or thousand, and then select from number lines or strip diagrams to model and solve problems. The teacher prompts a guided reflection on which strategy and representation were most appropriate for the context. The "Course Guide" reinforces strategic decision-making and accuracy through warm-ups and fluency routines. Instructional materials include opportunities to evaluate the

most efficient procedures for solving problems involving place value, measurement conversions, and multi-step operations.

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 include prompts in Mission 1, Lesson 2, "Wrap-Up," that ask students to compare strategies for solving multiplication problems using arrays, area models, and equations. Questions such as, "Which method was quicker?" and "Which model helped you visualize the problem best?" support reflection on strategic effectiveness.

The materials include paired strategy work in Mission 4, where students compare different formulas for perimeter, including L + W + L + W, 2L + 2W, and 2 × (L + W). After solving using each formula, students evaluate the efficiency of each method and the appropriateness of their strategy based on the given side lengths.

The "Course Guide" provides additional evaluation prompts within the "Wrap-Up" sections, asking students to reflect on their solution strategies, analyze decompositions, and compare representations. Instructional supports highlight how accuracy and efficiency can vary across models, and students are encouraged to articulate how and why a selected approach supported the task.

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

The materials include guidance to support the selection of increasingly efficient problem-solving approaches. The teacher materials in Mission 1 prompt a transition from visual strategies, such as arrays and area models, to more efficient methods like the standard algorithm for multi-digit multiplication. Teacher guidance emphasizes selecting the plan that best fits the problem's complexity and structure. The materials include structured comparisons of perimeter and area strategies in Mission 4. The materials guide students to apply and compare three different formulas for perimeter and then determine which method is most efficient for a given shape. The lesson concludes with an extension that requires students to find unknown side lengths based on given area or perimeter, reinforcing the strategic selection of methods. The "Course Guide" provides guidance on building increasingly efficient problem-solving strategies over time. Teachers are encouraged to use tools, such as blank templates, place value supports, and contextual discussions, to help students develop streamlined approaches while maintaining a conceptual understanding.

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 materials explicitly state the conceptual emphasis of the TEKS in Mission 3, Topic A, by introducing multi-digit multiplication through area models and place value strategies. Lesson guidance emphasizes understanding the relationship between partial products and the structure of the standard algorithm. In Mission 5, the materials help build conceptual understanding of equivalent fractions by using visual models, such as fraction towers and number lines, to represent part–whole relationships and benchmark comparisons.

The materials explicitly state the procedural emphasis of the TEKS in Mission 5, where lesson guidance transitions from visual models to symbolic representations. The materials prompt students to use equations and standard notation to compare, compose, and decompose fractions with like and unlike denominators. This progression reinforces procedural fluency with fraction operations and comparisons.

The grade 4 "Course Guide" outlines the progression from conceptual models to procedural strategies across major content strands. For example, the materials use fraction models, area representations, and measurement visuals to build foundational understanding before introducing standard algorithms and symbolic comparisons.

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

In Mission 2, students use place value disks to solve measurement and conversion problems involving metric units. In Mission 4, students construct and measure angles using physical tools. In Mission 5, the materials provide opportunities to use concrete models, such as fraction towers, to explore fraction equivalence and decomposition. In Mission 6, students model decimals using virtual base-ten blocks and decimal grids to support their understanding of place value.

The materials include pictorial representations that reinforce conceptual understanding across major topics. During "Concept Exploration" and "Warm-Up" activities, students draw number lines to represent equivalent and decimal fractions, use visual models to construct and classify geometric figures, and

create area models to support multi-digit multiplication strategies. These visuals build on concrete experiences and guide students toward symbolic representations.

The materials present abstract models following work with manipulatives and visuals to support grade-level fluency. Students write equations to represent operations with fractions and decimals, express relationships between angles and side lengths using standard notation, and use algorithms to solve multi-digit operations.

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 supports for connecting concrete and representational models to abstract concepts. In Mission 2, Lesson 4, students use place value disks and expanded notation to convert metric units and connect those models to symbolic expressions representing the same values. In Mission 5, Lesson 8, students use number lines and fraction towers to visualize equivalent fractions before writing equations to describe those relationships. Lesson guidance prompts students to use visual evidence to articulate the reasoning behind each equivalence.

The materials support creating concrete and representational models across multiple missions. In Mission 3, students draw arrays and area models to solve multi-digit multiplication problems and construct visual models to analyze the size and location of remainders. In Mission 4, students use hands-on tools and sketches to measure and construct angles, build geometric figures, and classify shapes based on visual criteria.

The materials include supports for defining and explaining how models align with abstract concepts. In "Student Lesson Materials" and "Lesson Synthesis" in Mission 5, students describe how fraction models show the meaning of numerators and denominators and explain the connection between visual representations and the symbolic notation used in equations. Students use sentence starters and targeted questions to define mathematical terms, interpret place value in decimal models, and explain how strip diagrams and number lines relate to multi-step problem-solving strategies.

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 introduce academic vocabulary through explicit modeling supported by visuals and manipulatives. In Mission 3, Lesson 6, students describe multi-digit multiplication using base-ten blocks, while the teacher introduces the terms *partial product* and *area model*, reinforcing understanding through images and narration.

Vocabulary development is supported in Mission 3, Lesson 12, through digital manipulatives. Students sort place value disks to represent dividend and divisor relationships and draw models to explain the structure of division problems.

In Mission 5, Lesson 13, students complete a hands-on fraction comparison task using shaded rectangles. Teachers prompt students to name and describe the shaded and unshaded parts using terms such as *numerator* and *denominator.*

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 embed educator guidance to scaffold and extend the use of academic mathematical vocabulary in lesson discussions. In Mission 1, Lesson 5, during the "Multiple Means of Representation" section, students trace groups of objects in arrays using fingers or colored pencils while repeating the terms array and row. Teachers prompt students to describe their visual models using these terms in partner discussions and journal reflections. Lesson guidance supports structured oral language practice, reinforcing accuracy through repetition and peer explanation.

The materials provide multimodal support for vocabulary development using gestures, diagrams, and teacher-facilitated discussion. In Mission 2, Lesson 3, teacher materials explicitly instruct educators to model the gesture for area by outlining the surface of a rectangle, linking language to visual structure. In the "Concept Exploration" section, students use strip diagrams and equations to describe multiplicative comparisons using terms such as factor, product, and times as many. Guided questions such as "How

does this diagram show a comparison?" and "What are the factors in your equation?" extend academic vocabulary in mathematical reasoning.

The materials integrate explicit vocabulary instruction into real-world financial contexts. In Mission 6, Lesson 4, during "Math Chat" and "Guided Practice," labeled visuals introduce coin names, including quarter, dime, nickel, and penny. Teachers use prompts like "What do we mean by more expensive and less expensive?" and "How does the strip diagram show the change in cost?" to guide students in applying content-specific vocabulary such as *price*, *value*, *cost*, and *change*. Lesson guidance supports language development by connecting mathematical terms to meaningful scenarios and encouraging students to justify relationships using precise language.

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

The materials include embedded teacher-facing supports that guide the application of academic mathematical vocabulary during structured discourse. In Mission 1, Lesson 5, the teacher materials prompt using terms such as *array*, *row*, *equal group*s, *area mode*l, and *product*, to describe multiplication strategies and calculate area using rectangular arrays. Prompts in the "Lesson Synthesis" section include "How does the array help find the total area?" and "What does each row or column represent in this model?" to reinforce vocabulary through discussion and written explanation.

In Mission 1, Lesson 4, the "Concept Exploration" and "Guided Practice" sections provide prompts that support using terms such as *repeated addition*, *multiplication equation*, and *unit form*, during problem-solving tasks involving equal groups and tiles. Sample teacher questions include "How can repeated addition represent this array?" and "How does the multiplication equation match the model?" to guide structured mathematical discourse.

In Mission 6, Lesson 4, the "Math Chat" and "Student Discussion" sections include structured prompts to support vocabulary use in financial contexts. The teacher materials present labeled visuals and questions, such as "What does it mean if an item costs more?" and "How does the strip diagram show the price change?" to guide the use of terms like *cost*, *price*, *value*, and *difference*, during the analysis of purchasing scenarios.

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 facilitate mathematical conversations using academic vocabulary with peers. In Mission 2, Lesson 9, the teacher materials provide sentence frames, such as "___ kilometers is equal to ___ meters," and "I multiplied because..." to support students' explanations of metric conversions. The "Guided Practice" section directs teachers to model sentence frames and monitor student dialogue to ensure correct vocabulary usage.

In Mission 3, Lesson 10, the materials support peer discourse through structured tasks and embedded prompts in the "Multiple Means of Representation" and "Lesson Synthesis" sections. Students engage in guided discussions using the terms *partial products*, *area model*, and *algorithm* to describe and compare multiplication strategies. Teacher prompts such as "How does the area model help solve the problem?" and "Which method is more efficient?" promote academic vocabulary and collaborative analysis.

In Mission 7, Lesson 3, the materials include embedded prompts and visual models to support structured dialogue about mixed-unit conversions. Students interpret visual models using terms such as *gallons*, *quarts*, and *volume*. The "Math Chat" routine guides discussion with questions like "Why do we convert gallons to quarts first?" and "How does the diagram represent total volume?" This structure supports vocabulary use that is aligned with lesson goals.

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 guidance to anticipate a variety of student answers, including possible misconceptions, and to provide exemplar responses to questions and tasks. In Mission 3, Lesson 8, the "Teacher Lesson Materials" lists possible solution strategies students might use for multiplying two-digit numbers, along with sample correct answers that model efficient approaches.

The materials provide explicit prompts and instructional moves to support and redirect inaccurate student responses. In Mission 5, Lesson 4, teachers are guided to address errors in identifying equivalent fractions by prompting students to revisit fraction models and compare visual representations to confirm accuracy.

The materials do not include exemplar responses and redirection guidance in every lesson; some lessons present only correct answers without associated instructional moves to address misconceptions, which limits consistent support for all possible student responses across the program.

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 materials embed structured opportunities to engage with the TEKS Process Standards through recurring instructional components. Students apply the RDW (Read, Draw, Write) process to solve real-world multiplication problems using strip diagrams, number bonds, and written explanations in "Guided Practice" and "Tower of Power" tasks.

In Mission 3, Lesson 17, "Math Chats," students model strategy selection and solution justification through visual representations and teacher-guided discourse that aligns with process standards 4.1A–4.1G.

Written response prompts in "Student Notes" and "Exit Tickets" support students in explaining reasoning and evaluating strategies when solving fraction comparison problems.

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

The Mission 3: "Overview" describes how the TEKS Process Standards are embedded throughout the mission to support concept development. It outlines how students build fluency and understanding through modeling, communication, and analysis. The document highlights the progression from conceptual representations, such as area models and strip diagrams, to abstract strategies for multi-digit multiplication and division, emphasizing how early tasks develop the reasoning necessary for solving multi-step problems.

In Mission 3, Lesson 9, the materials prompt an analysis of multi-digit multiplication using area models. Students construct and label visual models, write equations to represent partial products, and explain how each part of the model connects to place value and the distributive property. These tasks integrate TEKS Process Standards by requiring students to model with mathematics, communicate relationships, and justify reasoning.

In Mission 3, Topic D, Lessons 18–20, the materials include tasks that extend multiplication to multi-step problem solving involving word problems, estimation, and visual models. Students select appropriate strategies, explain the relationships between quantities, and defend their solution pathways using both

equations and diagrams. Tasks reflect the integration of TEKS Process Standards by supporting reasoning, communication, and modeling across representations.

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

The grade 4 "Course Guide" includes a "Grade 4 Mathematical Process Standards by Lesson per Mission" chart that lists the specific TEKS process standards addressed in each lesson. The chart illustrates, for example, that standard 4.1C is introduced in Mission 3, Lessons 1–3, and standard 4.1E is introduced in Mission 5, Lessons 1–8. This documentation provides an overview of when the materials integrate each process standard across the year.

Each process standard is tracked individually and linked to lesson numbers, offering educators a map of where students engage in problem-solving, modeling, communication, and justification within the instructional sequence.

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	All criteria for guidance met.	3/3
—	**TOTAL**	9/9

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

The materials provide structured opportunities for students to think mathematically, make sense of mathematics, and persevere through solving problems. In Mission 3, the "Concept Exploration" includes partner modeling tasks and questions such as, "What conclusions can you make from your drawing?" to guide peer feedback and revision. Students solve problems involving long division with scaffolds such as graph paper and placeholder digits to support accurate alignment and promote persistence.

The materials guide students in analyzing multiple representations and selecting strategies for solving complex problems. In digital "Tower of Power" lessons, supports activate when students answer incorrectly, prompting sense-making and solution revision. Teachers present tasks that require justification of models such as base-ten blocks, labeled drawings, or place value charts when representing problems like ten times as many.

The materials include multi-step word problems and open-ended questions that require modeling, justification, and evaluation of reasonableness. Students solve problems involving area, perimeter, and multi-digit operations using strip diagrams and estimation. Tasks such as comparing T-shirt sales over two days or calculating total fabric use prompt strategy sharing and reflection through peer discussion and written explanations.

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

The materials guide students in understanding and explaining that problems have more than one solution path. In Mission 3, the "Concept Exploration" includes multistep word problems that prompt comparison of strategies shared by peers. Teachers ask questions such as "What's another way to represent that work?" to support analysis and explanation of alternate methods.

The materials provide opportunities for students to justify strategies through discourse and written reflection. Lessons on perimeter and area prompt students to apply and compare formulas such as P = l + w + l + w, P = 2l + 2w, and P = 2 × (l + w). Students solve problems using multiple strategies and discuss which is most efficient.

The materials require students to evaluate and justify multiple solution paths for a given problem. In tasks involving multidigit multiplication and elapsed time, students employ various strategies, including the standard algorithm, partial products, area models, and the distributive property. The "Read, Draw, Write" approach and "Lesson Synthesis" prompts guide students to assess efficiency, explain reasoning, and compare different solution methods.

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 include collaborative tasks that require students to do math and discuss strategies with peers. In Mission 3, the "Concept Exploration" prompts partners to solve problems involving perimeter and area, share how they found the missing lengths, and compare formulas to determine the most efficient approach.

The materials provide opportunities for students to write about math using diagrams and equations. In lessons on perimeter and area, students draw and label rectangles, apply formulas, and write solution statements that connect visual models to numerical representations.

The materials include structured discussion and writing prompts that guide students in explaining reasoning and reflecting on accuracy. During "Guided Practice" and "Lesson Synthesis," students solve multi-step word problems using strip diagrams, justify solutions using estimation, and respond to prompts such as "How can you know if 46,303 is a reasonable answer? Discuss with your partner." Each student completes individual written explanations and participates in peer dialogue to support mathematical understanding.

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 support educators in guiding students to communicate reasoning by sharing explanations, arguments, and justifications during problem solving. In Mission 3, the "Read, Draw, Write" process prompts students to model problems, explain their choice of representation to a partner, and justify their answers through structured dialogue.

The materials provide scripted prompts for classroom discussion and solution strategy reflection. In Mission 7, students reflect on how previous work with area models and partial products supports their understanding of two-digit by two-digit multiplication using the standard algorithm. Educators ask questions such as, "How is it different?" and "How did your understanding help you learn the algorithm?"

The materials embed tasks that require students to present and analyze solution methods through peer dialogue. Students solve multi-step problems involving ratios, multiplication, and comparison, and respond to prompts such as, "Explain how you solved the problem" and "What is the advantage of this method?" Students compare approaches and justify their reasoning by discussing efficiency, strategy similarity, and the logic of their models.

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

The materials include prompts to help educators respond to student responses. In Mission 3, Lesson 18, the teacher asks follow-up questions as students solve problems. The materials provide the teacher with prompts, as well as anticipated student answers. For example, "We'll think of our eights facts. I'm thinking of an eights fact whose product is close to 74. Can you guess? Nice job! But 72 is only part of 74. What's the other part? What is 74 divided by 8?"

In Mission 3, Lesson 8, the materials offer educator guidance in "NOTES ON MULTIPLE MEANS OF ACTION AND EXPRESSION" on what to do when students recognize and want to start using more efficient strategies than the one presented. For example, the materials state, "Review the advantages of tracking regrouping, yet encourage innovation and discovery of other methods such as the method as introduced in Problem 3."

"Concept Exploration" includes anticipated misconceptions notes with explanations, and prompts to guide reasoning.