IMRA Review Cycle 2024 Report

Publisher Name	Program Name
Texas Education Agency, Open Education Resources	*Bluebonnet Learning Grade 3 Math, Edition 1*
Subject	**Grade Level**
Mathematics	3

Texas Essential Knowledge and Skills (TEKS) Coverage: **100%**

English Language Proficiency Standards (ELPS) Coverage: **100%**

Quality Review Overall Score: **223 / 227**

IMRA Reviewers

Flags for Suitability Noncompliance **0**

Indicator	Count of Flags
1. Prohibition on Common Core	**0**
2. Alignment with Public Education's Constitutional Goal	**0**
3. Parental Rights and Responsibilities	**0**
4. Prohibition on Forced Political Activity	**0**
5. Protecting Children's Innocence	**0**
6. Promoting Sexual Risk Avoidance	**0**
7. Compliance with the Children's Internet Protection Act (CIPA)	**0**

Flags for Suitability Compliance **3**

Indicator	Count of Flags
Alignment with Public Education's Constitutional Goal, 2.1.1	**3**
Promoting Sexual Risk Avoidance, 6.2	**0**

Alleged Factual Errors **0**

Public Feedback

Flags for Suitability Noncompliance **0**

Rubric Indicator	Count of Flags
1. Prohibition on Common Core:	**0**
2. Alignment with Public Education's Constitutional Goal	**0**
3. Parental Rights and Responsibilities	**0**
4. Prohibition on Forced Political Activity	**0**
5. Protecting Children's Innocence	**0**
6. Promoting Sexual Risk Avoidance	**0**
7. Compliance with the Children's Internet Protection Act (CIPA)	**0**

Alleged Factual Errors **0**

Public Comments **0**

Quality Review Summary

Rubric Section	Quality Rating
1. Intentional Instructional Design	50 / 53
2. Progress Monitoring	28 / 28
3. Supports for All Learners	31 / 32
4. Depth and Coherence of Key Concepts	23 / 23
5. Balance of Conceptual and Procedural Understanding	66 / 66
6. Productive Struggle	25 / 25

Strengths

- 1.1 Course-Level Design: Materials include a scope and sequence outlining the TEKS, ELPS, concepts, and knowledge taught in the course, with suggested pacing guides for various instructional calendars, explanations for the rationale of unit order and concept connections, guidance for unit and lesson internalization, and resources to support administrators and instructional coaches in implementing the materials as designed.
- 1.2 Unit-Level Design: Materials include comprehensive unit overviews that provide background content knowledge and academic vocabulary necessary for effective teaching, and contain supports for families in both Spanish and English with suggestions for supporting their student's progress.
- 2.1 Instructional Assessments: Materials include a variety of instructional assessments at the unit and lesson levels, including diagnostic, formative, and summative assessments with varied tasks and questions, along with definitions and purposes, teacher guidance for consistent administration, alignment to TEKS and objectives, and standards-aligned items at different levels of complexity.
- 2.2 Data Analysis and Progress Monitoring: Materials include instructional assessments and scoring information that provide guidance for interpreting and responding to student performance, offer guidance on using tasks and activities to address student performance trends, and include tools for students to track their own progress and growth.
- 3.1 Differentiation and Scaffolds: Materials include teacher guidance for differentiated instruction, activities, and scaffolded lessons for students who have not yet reached proficiency, pre-teaching or embedded supports for unfamiliar vocabulary and references in text, and guidance for differentiated instruction, enrichment, and extension activities for

students who have demonstrated proficiency in grade-level content and skills.

- 3.2 Instructional Methods: Materials include prompts and guidance to support teachers in modeling, explaining, and directly and explicitly communicating concepts to be learned. They provide teacher guidance and recommendations for effective lesson delivery using various instructional approaches, and support multiple types of practice with guidance on recommended structures, such as whole group, small group, and individual settings, to ensure effective implementation.
- 4.1 Depth of Key Concepts: Materials provide practice opportunities and instructional assessments that require students to demonstrate depth of understanding aligned to the TEKS, with questions and tasks that progressively increase in rigor and complexity, leading to grade-level proficiency in mathematics standards.
- 4.2 Coherence of Key Concepts: Materials demonstrate coherence across courses and grade bands through a logically sequenced scope and sequence, explicitly connecting patterns, big ideas, and relationships between mathematical concepts, linking content and language across grade levels, and connecting students' prior knowledge to new mathematical knowledge and skills.
- 4.3 Spaced and Interleaved Practice: Materials provide spaced retrieval and interleaved practice opportunities with previously learned skills and concepts across lessons and units.
- 5.1 Development of Conceptual Understanding: Materials include questions and tasks that require students to interpret, analyze, and evaluate various models for mathematical concepts, create models to represent mathematical situations, and apply conceptual understanding to new problem situations and contexts.
- 5.2 Development of Fluency: Materials provide tasks designed to build student automaticity and fluency for grade-level tasks, offer opportunities to practice efficient and accurate mathematical procedures, evaluate procedures for efficiency and accuracy, and include embedded supports for teachers to guide students toward more efficient approaches.
- 5.3 Balance of Conceptual Understanding and Procedural Fluency: Materials explicitly state how the conceptual and procedural emphasis of the TEKS are addressed, include questions and tasks that use concrete models, pictorial representations, and abstract representations, and provide supports for students in connecting and explaining these models to abstract concepts.
- 5.4 Development of Academic Mathematical Language: Materials provide opportunities for students to develop academic mathematical language using visuals, manipulatives, and language strategies, with embedded

teacher guidance on scaffolding vocabulary, syntax, and discourse, and supporting mathematical conversations to refine and use math language.

- 5.5 Process Standards Connections: Materials integrate process standards appropriately, providing descriptions of how they are incorporated and connected throughout the course, within each unit, and in each lesson.
- 6.1 Student Self-Efficacy: Materials provide opportunities for students to think mathematically, persevere through problem-solving, and make sense of mathematics, while supporting them in understanding multiple ways to solve problems and requiring them to engage with math through doing, writing, and discussion.
- 6.2 Facilitating Productive Struggle: Materials support teachers in guiding students to share and reflect on their problem-solving approaches, offering prompts and guidance for providing explanatory feedback based on student responses and anticipated misconceptions.

Challenges

- 1.3 Lesson-Level Design: Materials do not include comprehensive, structured, detailed lesson plans that include daily objectives required to meet language standards of the lesson.
- 3.3 Support for Emergent Bilingual Students: The materials do not include teacher guidance on providing linguistic accommodations for multiple levels of language proficiency as defined by the ELPS.

Summary

Bluebonnet Learning is a mathematics 3-5 program aligned to the Texas Essential Knowledge and Skills (TEKS) and English Language Proficiency Standards (ELPS). The instructional materials offers a structured approach to grade 3 math instruction, incorporating a detailed scope and sequence that outlines the concepts and knowledge to be taught across various units. Each unit is supported by pacing guides that accommodate different instructional calendars, ensuring effective implementation regardless of the number of instructional days available. The program includes comprehensive unit overviews that provide essential background knowledge, academic vocabulary, and misconceptions necessary for teaching concepts effectively.

Campus and district instructional leaders should consider the following:

- The program materials include instructional materials with assessment tasks that provide progressions towards proficiency through rubrics and exemplar student responses to support scoring and responding to student performance. The lessons include margin notes throughout to offer support that ensures access for all learners. Unit Overviews include the foundational standards that support the recommendation to use the Succeed resource from the prior grade for intervention. The materials include instruction for various strategies to suit students' needs and

preferences. Separate small group lessons for intervention or extension are not a part of the materials.

- The program includes materials that allow students to work through the vertically aligned problem-solving model and to think critically about mathematics. The materials have a variety of ways to assess ELPS embedded into mathematics, including strategies for emerging bilingual learners. Routines within the program, such as lesson structure, support the teacher with engaging students in the demands of the mathematical tasks and include intentional daily opportunities for discourse, high-level thinking, and flexible thinking. Tasks throughout the materials consistently build in complexity using the concrete, representational, abstract approach to learning mathematics, going deep on the most critical topics to the grade level. Over time, the materials tell a coherent story of mathematics within and across grade levels.

Intentional Instructional Design

1.1	Course-Level Design	15/15
1.1a	Materials include a scope and sequence outlining the TEKS, ELPS, concepts, and knowledge taught in the course.	**5/5**
1.1b	Materials include suggested pacing (pacing guide/calendar) to support effective implementation for various instructional calendars (e.g., varying numbers of instructional days – 165, 180, 210).	**2/2**
1.1c	Materials include an explanation for the rationale of unit order as well as how concepts to be learned connect throughout the course.	**2/2**
1.1d	Materials include guidance, protocols, and/or templates for unit and lesson internalization.	**2/2**
1.1e	Materials include resources and guidance to support administrators and instructional coaches with implementing the materials as designed.	**4/4**

The materials include a scope and sequence outlining the Texas Essential Knowledge and Skills (TEKS), English Language Proficiency Standards (ELPS), concepts, and knowledge taught in the course. Materials include suggested pacing (pacing guide/calendar) to support effective implementation for various instructional calendars (e.g., varying numbers of instructional days – 165, 180, 210). Materials include an explanation for the rationale of unit order as well as how concepts to be learned connect throughout the course. Materials include guidance, protocols, and/or templates for unit and lesson internalization. Materials include resources and guidance to support administrators and instructional coaches with implementing the materials as designed.

Evidence includes, but is not limited to:

Materials include a scope-and-sequence outlining the TEKS, ELPS, concepts, and knowledge taught in the course.

- The materials include a "Grade 3 Year-at-a-Glance/Scope and Sequence" section in the *Course Guide*. This section outlines each module's topics, the number of instructional days for each module, and the concepts, knowledge, and skills covered in each module.
- The materials include a pacing guide located in the *Course Guide*, organized by process standards, TEKS, and ELPS, with focus standards highlighted in bold. Additionally, the pacing guide offers a rationale for the instructional order within grade 3 and how it connects to learning in grades K-2.
- In the "Grade 3 Standards by Lesson" section of the *Course Guide*, educators find a table titled "Grade 3 English Language Proficiency Standards by Lesson per Module," detailing the ELPS standards addressed in each module and lesson.

Materials include suggested pacing (pacing guide/calendar) to support effective implementation for various instructional calendars (e.g., varying numbers of instructional days–165, 180, and 210).

- The materials include a pacing guide in the "Grade 3 Year-at-a-Glance/Scope and Sequence," summarizing the suggested number of instructional days for each module and a 165-day instructional calendar. The materials also include an "Overview of Module Topics" and a "Lesson Objectives" chart in the "Module Overview" section at the beginning of each teacher edition. The overview is organized by topic and includes TEKS, ELPS, lesson numbers, objectives, and the suggested number of days, covering a total of 165 instructional days.
- The materials include an Additional Days School Year (ADSY) module to support effective implementation for extending the 165-day instructional calendar by up to 30 days, which supports schools with various instructional calendars.

Materials include an explanation for the rationale of unit order as well as how concepts to be learned connect throughout the course.

- The *Course Guide*'s "Sequence of Grade 3 Modules Aligned with TEKS" section provides a rationale for the order of units, explaining how the knowledge and skills in each module build upon learning and make connections across the units. For instance, Module 3 expands on multiplication and division concepts introduced in Module 1.
- Each module begins with an overview that explains the rationale behind the order of topics and lessons. It highlights how each topic builds on prior knowledge and prepares students for subsequent concepts. For example, the overview in Module 1 describes the connection by explaining that lessons in topic A move students' grade 2 work with arrays and repeated addition a step further by developing skip counting rows as a strategy for multiplication.

Materials include guidance, protocols, and/or templates for unit and lesson internalization.

- The materials include a *K-5 Math Program and Implementation Guide*, which includes a section explaining each module's module structure and lesson structure. The lesson structure overview provides a "Lesson Internalization Protocol," which includes a step-by-step process for understanding each lesson before teaching. In addition, materials include explanations of fluency practice, application problems, concept development, problem sets, student debriefs, and exit tickets.
- The *K-5 Math Program and Implementation Guide* includes a "Teacher Module Internalization Protocol," providing step-by-step guidance for teachers to thoroughly understand each module before teaching. This protocol facilitates a four-step process to grasp the unit's objectives, sequence, and pacing of activities. It enables comprehensive preparation for teaching by exploring and organizing instructional resources.

Materials include resources and guidance to support administrators and instructional coaches with implementing the materials as designed.

- In the *K-5 Math Program and Implementation Guide,* there are two coach guides aligned with the Teacher Module Internalization Protocol and Teacher Lesson Internalization Protocol templates. These guides support administrators and coaches in assisting teachers with module implementation and internalization, providing a structured approach with a stated purpose for each step, recommended timing, and optional ideas for further exploration.
- An "Observation Tool" template located in the *K-5 Math Program and Implementation Guide* provides administrators and coaches support for the implementation of course materials with fidelity. This tool offers non-evaluative feedback to teachers on their implementation progress. In addition, the observation tool serves as a resource for documenting observations of teachers' instructional practices and material implementation, with sections outlining specific activities to observe before, during, and after classroom visits.
- The grade 3 *Course Guide* features a "Manipulatives and Supplies Lists" section, offering coaches and administrators a comprehensive list necessary to support fidelity in implementing course materials.
- The "Student Work Analysis Protocol" found in the *K-5 Math Program and Implementation Guide* utilizes a six-step process to analyze student work samples. It guides coaches and administrators in understanding student thinking and identifying learning strengths and gaps through reflective questions.

Intentional Instructional Design

1.2	Unit-Level Design	4/4
1.2a	Materials include comprehensive unit overviews that provide the background content knowledge and academic vocabulary necessary to effectively teach the concepts in the unit.	**2/2**
1.2b	Materials contain supports for families in both Spanish and English for each unit with suggestions on supporting the progress of their student.	**2/2**

The materials include comprehensive unit overviews that provide the background content knowledge and academic vocabulary necessary to effectively teach the concepts in the unit. Materials contain supports for families in both Spanish and English for each unit with suggestions on supporting the progress of their student.

Evidence includes, but is not limited to:

Materials include comprehensive unit overviews that provide the background content knowledge and academic vocabulary necessary to effectively teach the concepts in the unit.

- The materials begin each module with a comprehensive overview that provides essential background knowledge for effective teaching of new concepts. These overviews are structured by topic, featuring tables with common student misconceptions and visuals illustrating skills and strategies in each module. For instance, the "Module 1 Overview" includes visuals demonstrating how arrays are used to model distributive and commutative properties.
- The materials feature a terminology section at the beginning of each module's overview. This section includes bullet lists of new and recently introduced terms, accompanied by concise definitions and visuals. It also includes Spanish cognates where applicable. Teachers utilize separate lists for "New or Recently Introduced Terms" and "Familiar Terms and Symbols," offering guidance on effectively teaching the academic vocabulary integral to the module's concepts.
- The "Topic Overview" section of each module provides detailed information on focus TEKS and guidance for every topic, alongside vertical alignment connections to grade 3 math concepts. For example, the grade 3 Module 5 of the *Teacher Edition*, "Topic A: Partitioning a Whole into Equal Parts," aligns with grade 2, Module 8, and grade 4, Module 5 of the materials.

Materials contain supports for families in both Spanish and English for each unit with suggestions on supporting the progress of their student.

- The grade 3 *Course Guide* includes a "Tips for Families" section for each module, available in both English and Spanish. These tips provide families with an overview of key concepts covered in the module, strategies for supporting learning at home, and vocabulary definitions. Each tip sheet includes a checklist to monitor student progress and a section titled "Additional Ways to Help at Home," which offers families visual models demonstrating concepts and

strategies. These strategies include using everyday items like crackers, crayons, or toys to reinforce mathematical understanding.

- The materials feature a *Family Guide* containing a letter explaining the program's purpose and the resources available for families to support their students. This guide also includes sample problems demonstrating various problem-solving approaches. The family letter emphasizes the importance of teaching students multiple methods to solve math problems, stating, "We limit our students if we give them only one set of tools to solve math problems. The three examples above show what is possible when students learn multiple approaches." The guide is provided in both English and Spanish.
- The materials feature "Homework Helpers" in the *Succeed* student workbooks, offering step-by-step explanations for each homework assignment. This resource assists students in understanding and solving problems effectively. Additionally, the *K–5 Math Family Guide* outlines resources like "Homework Helpers" and Tips for Families" to aid families in supporting their students during homework. These are available in both English and Spanish.

Intentional Instructional Design

1.3	Lesson-Level Design	31/34
1.3a	Materials include comprehensive, structured, detailed lesson plans that include daily objectives, questions, tasks, materials, and instructional assessments required to meet the content and language standards of the lesson.	**27/30**
1.3b	Materials include a lesson overview outlining the suggested timing for each lesson component.	**1/1**
1.3c	Materials include a lesson overview listing the teacher and student materials necessary to effectively deliver the lesson.	**2/2**
1.3d	Materials include guidance on the effective use of lesson materials for extended practice (e.g., homework, extension, enrichment).	**1/1**

The materials include comprehensive, structured, detailed lesson plans that include daily objectives, questions, tasks, materials, and instructional assessments required to meet the content standards of the lesson. Materials include comprehensive, structured, detailed lesson plans that include questions, tasks, materials, and instructional assessments required to meet the language standards of the lesson. Materials do not include comprehensive, structured, detailed lesson plans that include daily objectives required to meet language standards of the lesson. Materials include a lesson overview outlining the suggested timing for each lesson component. Materials include a lesson overview listing the teacher and student materials necessary to effectively deliver the lesson. Materials include guidance on the effective use of lesson materials for extended practice (e.g., homework, extension, enrichment).

Evidence includes, but is not limited to:

Materials include comprehensive, structured, detailed lesson plans that include daily objectives, questions, tasks, materials, and instructional assessments required to meet the content and language standards of the lesson.

- The *Teacher Edition* for Modules 1–7 includes a section at the beginning of each lesson called "Suggested Lesson Structure." This section is organized into four parts: "Fluency Practice," "Application Problems," "Concept Development," and "Student Debrief." Each lesson begins with a content objective and follows a recommended bullet-pointed structure detailing each component and its allocated time. Comprehensive teacher guidance is provided for each lesson component, including step-by-step instructions for activities, questions, and possible student responses. Each lesson contains a list of materials required for each task within a lesson, if applicable. Some lessons also include additional teacher guidance in the form of margin notes offering support for language and scaffolding activities aligned with the ELPS. Materials include ELPS by module and lesson in the *Course Guide* and ELPS by topic in the "Module Overview of Module Topics and Lesson Objectives" table. ELPS objectives do not appear at the lesson level as a part of comprehensive, structured, detailed lesson plans.

- Instructional assessments are integrated throughout the course materials. Each module includes a "Mid-Module Assessment," "End-of-Module Assessment," and an "Exit Ticket" for each lesson. Detailed teacher guidance for informal instructional assessment opportunities is provided within individual lesson components.
- The materials include a list of teacher questions and potential student responses within daily lesson plans, along with key academic vocabulary for each lesson. For instance, Module 2, *Teacher Edition*, Lesson 17, includes a Student Debrief section with the question: "How is the procedure for rounding to the nearest hundred the same or different for three-digit and four-digit numbers?"

Materials include a lesson overview outlining the suggested timing for each lesson component.

- Individual lessons in the materials follow a consistent framework and include a "Suggested Lesson Structure" found at the beginning of each lesson, which provides teacher guidance for the timing of each component in the lesson cycle. The time allotted for each lesson component within the Suggested Lesson Structure varies slightly among the lessons. Every lesson cycle in the materials is designed to be 60 minutes in length. Each lesson displays a pie chart dividing each component of the lesson and the number of suggested minutes for that component. For example, in Module 4, Lesson 4, the Suggested Lesson Structure is Fluency Practice for 12 minutes, Application Problem for eight minutes, Concept Development for 30 minutes, and Student Debrief for 10 minutes, for a total time of 60 minutes.
- The materials provide guidance on how long to spend on each Fluency Practice activity included in each lesson of the *Module Teacher Edition*. There may be more than one fluency activity that needs to be done within a specific allotted time frame. For example, in Lesson 3 of Module 4, there are three fluency activities to complete within 12 minutes. Each activity has a four-minute suggested time allotment.

Materials include a lesson overview listing the teacher and student materials necessary to effectively deliver the lesson.

- The *Grade 3 Course Guide* includes a comprehensive "Manipulatives and Supplies List" that details the type and quantity of student materials. Each module in the materials provides a list of "Suggested Tools and Representations" in its Module Overview, specifying student materials required for the module. This organized table format aids teachers in planning and preparation, detailing each item's identification, quantity, and description. Teachers can utilize these charts to ensure they have all the necessary materials well in advance. Each component section at the beginning of individual lessons includes a list of materials needed. Materials designated for teachers are indicated with (T), while those for students are marked with (S). For example, certain fluency activities may require students to have a personal whiteboard, noted as "(S) personal whiteboard" beneath the specific activity.
- The "Lesson Overview Materials List" in each Module Overview includes a comprehensive list of the teacher and student materials necessary to effectively deliver each lesson in the

module. The list of materials is in a table by lesson and separated by teacher and student materials.

Materials include guidance on the effective use of lesson materials for extended practice (e.g., homework, extension, enrichment).

- The *K-5 Math Program and Implementation Guide* includes a section titled "Homework Helpers," which includes an overview of homework guidance and instructions for solving problems similar to those found in lessons. Each homework practice set in "Succeed" is supported by its corresponding Homework Helper.
- The *K-5 Math Program and Implementation Guide* includes guidance on homework usage in the Lesson Structure section. It emphasizes that homework aims to reinforce understanding and confidence with previously learned material rather than introduce new concepts. Homework assignments are located in the student's Succeed workbook and align closely with lesson concept development. Each lesson offers optional homework practice and advice on selecting the most effective homework materials for extended practice. Alternatively, the *Implementation Guide* suggests utilizing the lesson's Fluency component for additional practice outside of school hours.
- Lessons included in the materials periodically provide teacher suggestions for student extension and enrichment opportunities within the individual lesson components, noted in the *Module Teacher Editions* in boxes entitled "Notes on Multiple Means of Engagement (MME)." For example, in Module 2, Concept Development, Lesson 17 includes an MME box that states "Alternatively, challenge students to offer three other numbers similar to 2,146 that would be rounded to 2,100."

Progress Monitoring

2.1	Instructional Assessments	24/24
2.1a	Materials include a variety of instructional assessments at the unit and lesson level (including diagnostic, formative, and summative) that vary in types of tasks and questions.	**12/12**
2.1b	Materials include the definition and intended purpose for the types of instructional assessments included.	**2/2**
2.1c	Materials include teacher guidance to ensure consistent and accurate administration of instructional assessments.	**2/2**
2.1d	Diagnostic, formative, and summative assessments are aligned to the TEKS and objectives of the course, unit, or lesson.	**6/6**
2.1e	Instructional assessments include standards-aligned items at varying levels of complexity.	**2/2**

The materials include a variety of instructional assessments at the unit and lesson level (including diagnostic, formative and summative) that vary in types of tasks and questions. Materials include the definition and intended purpose for the types of instructional assessments included. The materials include teacher guidance to ensure consistent and accurate administration of instructional assessments. Materials include diagnostic, formative, and summative assessments that are aligned to the TEKS and objectives of the course, unit, or lesson. Instructional assessments include standards-aligned items at varying levels of complexity.

Evidence includes, but is not limited to:

Materials include a variety of instructional assessments at the unit and lesson level (including diagnostic, formative, and summative) that vary in types of tasks and questions.

- The grade 3 *Assessments Teacher Edition* provides formative and summative assessments that include multiple-choice questions, short-constructed responses, and questions of varying complexity. Tasks can be administered either on paper or online. Task formats include short answer, inline, fill-in-the-blank, multiple choice, and multi-select questions. The materials include a variety of instructional assessments that vary in types of tasks and questions. For example, in Module 1, Lesson 1, the Exit Ticket and Problem Set are two different types of tasks with different questions. These also vary compared to the "Module 1 End-of-Module Assessment." The grade 3 *Assessments Teacher Edition* incorporates summative assessments at the unit level through Mid-Module and End-of-Module Assessment Tasks, which include multiple-choice and short-constructed response questions. Teacher guidance from the *OER K-5 Math Program and Implementation Guide* indicates these assessments can serve both formative and summative purposes.
- The grade 3 *Assessments Teacher Edition* suggests that some questions within Mid-Module Assessment Tasks can serve diagnostically by assessing TEKS that recur in End-of-Module Assessment Tasks. According to the *Assessment* book, "Mid-Module Assessment Tasks and

Rubrics" can also be used in a "diagnostic manner as they assess TEKS that will be assessed again on the End-of-Module Assessment Task."

- "Fluency Practice" and "Application Problems" are described as diagnostic tools intended to provide distributed practice and connect previous concepts to current lessons. As outlined in the *OER K-5 Math Program and Implementation Guide*, there are several lesson-level and module-level diagnostic assessments. At the lesson level, fluencies can be used to diagnose readiness in the lesson. The format of fluencies varies throughout the module. Fluency Practice has three goals, including "Anticipation (skills that ensure students are ready for the in-depth work of upcoming lessons)." Also, Application Problems can be "used to activate schema or prepare students for new learning." Lastly, the "Exit Tickets" are stated to have two purposes, which are "indispensable for planning purposes" of future lessons. Exit tickets also vary in format.
- The materials provide formative assessments through "Problem Sets" in each module, offering diverse tasks like group projects and various question types. For instance, in grade 3, "Module 2, Lesson 1," students use a stopwatch and collaborate in groups during Problem Set activities. These sets feature multiple-choice and short-constructed response questions, promoting analysis, evaluation, and creative thinking. "Student Debriefs" serve as formative assessments through class discussions. According to the *OER K-5 Math Program and Implementation Guide*, Mid-Module Assessments are considered summative or formative. This information is also stated in the *Assessment* book.

Materials include the definition and intended purpose for the types of instructional assessments included.

- The materials outline the roles and intended purposes of diagnostic tools, formative assessments, and summative assessments. For example, the Approach to Assessments section in the *OER K-5 Math Program and Implementation Guide* clarifies that Mid-Module and End-of-Module Assessment Tasks are primarily summative assessments. These tasks provide comprehensive feedback on student understanding and instructional effectiveness, guiding adjustments in teaching. The *OER K-5 Math Program and Implementation Guide* and the Grade 3 Assessment Guide define the various types of assessments, such as mid-module and end-of-module assessments. Both thoroughly explain the purpose and rationale behind each assessment as well as when to administer them.
- Problem Sets and Exit Tickets are described as formative assessments. Exit Tickets are brief assessments designed to immediately gauge student comprehension and identify areas needing review or additional support.

Materials include teacher guidance to ensure consistent and accurate administration of instructional assessments.

- The materials include an "Approach to Assessments in the K–5 Math Instructional Materials" section in the grade 3 *Assessments Teacher Edition*, which provides teacher guidance on best practices to ensure the consistent administration of both the Mid-Module and End-of-Module

(instructional) Assessment Tasks included in each module (unit) of the materials. Additionally, these tasks present new challenges to students and are not preceded by similar problems.

- The *OER K-5 Math Program and Implementation Guide*, included in the program materials, offers teacher guidance on best practices for administering formative and summative assessments to ensure accurate administration of both. For example, the End-of-Module Assessment Task section specifies that "Similar to the Mid-Module Assessment tasks, the End-of-Module tasks should be completed independently by students within one class period. These tasks should also be new to the students and not preceded by analogous problems."
- The "Suggestions for Implementation" in the *Assessment Guide Teacher Edition* provides suggestions on the time allotted for the Mid-Module and End-of-Module Assessments. In the "Module Overview" found in each *Module Teacher Edition*, there is a chart that provides information on when to administer the Mid-Module and End-of-Module assessments and how many days are allotted for each assessment. This guidance helps teachers ensure consistent administration of instructional assessments. Additionally, the "Suggested Methods of Instructional Delivery" section includes teacher guidance on how to administer "Sprints," which serve as formative assessments.

Diagnostic, formative, and summative assessments are aligned to the TEKS and objectives of the course, unit, or lesson.

- The materials include summative assessments aligned with the TEKS of the course and the objectives of the unit. In the Mid-Module Assessment Task and End-of-Module Assessment Task sections found in the *Assessment Guide Teacher Edition*, materials feature a chart detailing the standards addressed for each Mid-Module and End-of-Module Assessment Task. Additionally, there is a rubric titled "Progression Towards Proficiency" that specifies which TEKS each question on the Mid-Module and End-of-Module Assessment Tasks addresses, identifying correct answers and criteria for earning partial points. Exit tickets mirror the questions in the Problem Sets and align with the objectives and TEKS associated with each lesson.
- Exit ticket formative assessments are included in each lesson of the course materials, aligned with both the stated lesson objective (noted in the "Lesson Overview") and the TEKS (found in the "Overview of Module Topics and Lesson Objectives" within each module of the materials). The materials also contain formative assessments aligned with the course's TEKS and the lesson objectives.
- There are several opportunities for diagnostic assessments that are aligned with the TEKS and objective of the course, unit, or lesson. The first is the Mid-Module Assessment Task and Rubric, as found in the *Assessment* book, which outlines that they can be used in a "diagnostic manner as they assess TEKS that will be assessed again on the End-of-Module Assessment Task." The associated TEKS for that Mid-Module Assessment are found within the rubrics, as outlined, for example, on the Module 1 Mid-Module Assessment. Another TEKS-aligned diagnostic assessment can be found within the "Fluency and Application Problems," as outlined in the *OER K-5 Math Program and Implementation Guide*, which can be used for anticipatory purposes.

Instructional assessments include standards-aligned items at varying levels of complexity.

- The materials contain a Mid-Module Assessment Task that outlines the standards being assessed. This assessment comprises questions designed to prompt students to exhibit understanding across multiple levels of complexity using explanations, drawings, and representations. For instance, students are presented with a challenging task involving an open response and text entry: "Draw an array that represents the total number of carrots Mrs. Tran planted. Then, write a multiplication sentence to describe the array." Summative assessments include standards-aligned items in multiple-choice, short-answer, fill-in-the-blank, and multi-select formats. They include tasks at Depth of Knowledge levels 1, 2, and 3. Detailed information on different question types and answer keys can be found in the *K-5 Math Grade 3 Assessment Metadata* resource.
- Each lesson in the course materials includes a Problem Set with standards-aligned questions at different levels of complexity. Module 4, Lesson 3 includes a Problem Set as a daily formative assessment. Problem number 1 requires students to draw to determine the number of rows and columns in each array, reflecting the first level of complexity: remembering. Problem 2 asks students to explain their answers, reflecting the second level of complexity: understanding.

Progress Monitoring

2.2	Data Analysis and Progress Monitoring	4/4
2.2a	Instructional assessments and scoring information provide guidance for interpreting and responding to student performance.	**2/2**
2.2b	Materials provide guidance for the use of included tasks and activities to respond to student trends in performance on assessments.	**1/1**
2.2c	Materials include tools for students to track their own progress and growth.	**1/1**

The materials include instructional assessments and scoring information that provide guidance for interpreting and responding to student performance. Materials provide guidance for the use of included tasks and activities to respond to student trends in performance on assessments. Materials include tools for students to track their own progress and growth.

Evidence includes, but is not limited to:

Instructional assessments and scoring information provide guidance for interpreting and responding to student performance.

- In the *Grade 3 Assessments Teacher Edition*, the section on "Evaluating Student Outcomes" offers teachers guidance on using "Progression Toward Proficiency" rubrics. These rubrics, tailored for each Mid-Module and End-of-Module Assessment Task, help teachers pinpoint students' strengths, misconceptions, and areas needing instructional support. This section includes scoring details and guidance for teachers who use the Assessment Tasks as a formative or summative evaluation of student performance.
- The "Collaboratively Troubleshooting Student Misconceptions" section of *Grade 3: Modules 1-7 Teacher Edition* includes a table that could assist the teacher in addressing student misconceptions and responding to formative or summative assessment data. The table identifies possible misconceptions and provides strategies to help students better understand the learning objectives.

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

- The course materials include an "Additional Days School Year (ADSY) Module," which offers supplemental lessons, tasks, and activities. According to the *K-5 Component Navigation Guide*, these resources can be used for "responding to data after an assessment." The ADSY Module also provides teachers with guidance on using these lessons to address trends in student performance on assessments.
- The *Grade 3 Assessments Teacher Edition*, included in the course materials, features a "Suggestions for Implementation" section. This section suggests using tasks and activities to

respond to student performance on assessments. One such suggestion states, "For example, if data shows students need support reaching proficiency, teachers can utilize TEKS associated with each item in the Progression to Proficiency rubric. They can also refer to the scope and sequence, standards by lesson, and development of fluency information in the *Course Guide* to find appropriate lessons or fluency activities for additional practice."

- Each module in the *Teacher Edition* includes a section titled Collaboratively Troubleshooting Student Misconceptions, which includes a chart that identifies potential student misconceptions. It lists various tasks and activities designed to address these misconceptions. For instance, in "Module 4," a common misconception is that "students add the number of length units and the number of width units to find the area." The recommended task suggests "using gestures when discussing side lengths and area" and provides a script for teachers to follow.
- In the *OER K-5 Math Program and Implementation Guide*, the "Responding to Trends in Student Performance" section advises teachers on identifying trends and using structured materials effectively. It states, "Teachers can identify trends and use the coherent structure of these instructional materials to respond to student performance. Topics are clearly labeled with focus standards to help teachers quickly locate materials, problems, and other resources for supporting students in small groups or individually." This guidance assists teachers in utilizing tasks and activities to address trends in student performance effectively.

Materials include tools for students to track their own progress and growth.

- The "Assessment Reflection" section of the *Course Guide* includes a chart titled the "Assessment Reflection Tool." This tool helps students monitor their progress and growth. It includes guiding questions that students answer before, during, and after assessments. These questions prompt students to reflect on their experiences, understand confusing aspects, recognize their existing knowledge, and identify ways to better prepare for future assessments. According to the materials, "This assessment reflection tool, available in the *Course Guide* for each grade level, helps teachers facilitate discussions both before and after an assessment."
- The "Fluency Practice" section of the *OER K-5 Math Program and Implementation Guide* mentions that "Sprints can be used to promote self-monitoring and self-improvement."

Supports for All Learners

3.1	Differentiation and Scaffolds	8/8
3.1a	Materials include teacher guidance for differentiated instruction, activities, and/or paired (scaffolded) lessons for students who have not yet reached proficiency on grade-level content and skills.	**3/3**
3.1b	Materials include pre-teaching or embedded supports for unfamiliar vocabulary and references in text (e.g., figurative language, idioms, academic language). (T/S)	**2/2**
3.1c	Materials include teacher guidance for differentiated instruction, enrichment, and extension activities for students who have demonstrated proficiency in grade-level content and skills.	**3/3**

The materials include teacher guidance for differentiated instruction and activities, for students who have not yet reached proficiency on grade-level content and skills. Materials include pre-teaching or embedded supports for unfamiliar vocabulary and references in text (e.g., figurative language, idioms, academic language). Materials include teacher guidance for differentiated instruction, enrichment, and extension activities for students who have demonstrated proficiency in grade-level content and skills.

Evidence includes, but is not limited to:

Materials include teacher guidance for differentiated instruction, activities, and/or paired (scaffolded) lessons for students who have not yet reached proficiency on grade-level content and skills.

- The course materials include margin notes strategically placed to provide teachers with guidance on differentiated instruction or activities tailored for students who need more practice building proficiency on grade-level concepts. Within the *OER K-5 Math Program and Implementation Guide*, the "Differentiation and Scaffolds" section includes a chart illustrating examples of scaffolds across three categories: Multiple Means of Representation, Multiple Means of Action and Expression, and Multiple Means of Engagement.
- The *Additional Days School Year Manual* offers opportunities for students to gain additional practice in reinforcing content. The "Module Overview" within this manual provides suggestions on implementing lessons, each of which is aligned with at least one module.
- Within the *Grade 3 Modules 1–7 Teacher Edition*, the "Collaboratively Troubleshooting Student Misconceptions" section presents teachers with a table of differentiated instruction strategies and guiding questions. These resources are designed to assist students who are struggling to grasp specific concepts, aiming to support teachers in implementing differentiated instruction to enhance students' understanding of the TEKS.

Materials include pre-teaching or embedded supports for unfamiliar vocabulary and references in text (e.g., figurative language, idioms, academic language). (T/S)

- Lesson plans within the course materials include pre-teaching or embedded supports for unfamiliar vocabulary and references provided in margin notes. These notes feature scaffolds that clarify vocabulary through charts and visuals, and they offer sentence frames to support both oral and written language. For instance, in Module 1, Lesson 4, the Notes on Multiple Means of Representation suggest creating a chart to assist students, including emergent bilingual students, with understanding the term *unknown factor*. They recommend writing a division sentence such as 8 ÷ 4 = ___ and labeling the total, unknown factor, and known factor.
- Each module (unit) overview in the course materials includes a "Terminology" section that provides definitions and visual supports for the vocabulary featured in the module. Teacher guidance on utilizing the Terminology section for pre-teaching or embedded support is detailed in the *OER K-5 Math Program and Implementation Guide*.
- There are several opportunities for pre-teaching vocabulary. For example, in Module 3, Lesson 9 in the Multiple Means of Representation, there is an opportunity to pre-teach or clarify unfamiliar words used in the lesson. The margin notes include, "...pre-teach and/or clarify unfamiliar math terms such as *sequence*, *row*, *factors*, *product*, *number bond*, *count by*, and *skip-count*." Module 3, Lesson 7 provides guidance on pre-teaching to clarify unknowns using simple equations with boxes within the Notes on Multiple Means of Representation margin notes.

Materials include teacher guidance for differentiated instruction, enrichment, and extension activities for students who have demonstrated proficiency in grade-level content and skills.

- Lesson plans in the *Grade 3 Modules 1–7 Teacher Edition* include teacher guidance for differentiated instruction, targeting students who demonstrate proficiency in grade-level concepts. This instruction involves incorporating complex questions or tasks during the "Concept Development" and "Problem Set" sections of each lesson. According to the *OER K-5 Math Program and Implementation Guide*, "Problem Sets are intentionally crafted from simple to complex with various access points based on a student's current level of proficiency." Additionally, the materials offer opportunities for students to engage with questions of varying depth during the "Student Debrief," such as justifying their answers using academic vocabulary.
- Margin notes in lesson plan materials suggest differentiated instruction through extension activities designed for proficient students. For example, in Module 1, Lesson 7, the Notes on Multiple Means of Engagement box suggests providing a challenge to students by having them cover the array while skipping counting to find the solution, if suitable.
- The Differentiation and Scaffolds section of the *OER K-5 Math Program and Implementation Guide* states teachers should consult margin notes for extension suggestions. For instance, in Module 1, Lesson 8, the Notes on Multiple Means of Engagement section suggests that teachers "Ask students who benefit from a challenge to analyze strategies independently or in pairs, and then present their thinking during the Debrief."

- The materials have differentiated enrichment instruction for students who have demonstrated proficiency, as noted in Module 1, Lesson 15. In the "Application Problem," there is an extension for students, which is an opportunity for enrichment. The materials state, "On Monday, 6 students are absent. How many students are in class on Monday?" Also, in Lesson 15, the Multiple Means of Engagement margin box states, "Have students who need an additional challenge decompose the same problem using facts other than 5 x 4." Guidance also suggests that students compare strategies for efficiency.

Supports for All Learners

3.2	Instructional Methods	13/13
3.2a	Materials include prompts and guidance to support the teacher in modeling, explaining, and communicating the concept(s) to be learned explicitly (directly).	**6/6**
3.2b	Materials include teacher guidance and recommendations for effective lesson delivery and facilitation using a variety of instructional approaches.	**4/4**
3.2c	Materials support multiple types of practice (e.g., guided, independent, collaborative) and include guidance for teachers and recommended structures (e.g., whole group, small group, individual) to support effective implementation.	**3/3**

The materials include prompts and guidance to support the teacher in modeling, explaining, and communicating the concept(s) to be learning explicitly (directly). Materials include teacher guidance and recommendations for effective lesson delivery and facilitation using a variety of instructional approaches. Materials support multiple types of practice (e.g., guided, independent, collaborative) and include guidance for teachers and recommended structures (e.g., whole group, small group, individual) to support effective implementation.

Evidence includes, but is not limited to:

Materials include prompts and guidance to support the teacher in modeling, explaining, and communicating the concept(s) to be learned explicitly (directly).

- Each lesson within the course materials features a concept development component structured with detailed teacher prompts presented in a vignette format, marked with "T:". These prompts provide explicit guidance for modeling, explaining, and communicating the concepts addressed in the lesson. Additionally, exemplary student responses to each question are provided and marked with "S:".
- The "Concept Development" section in the *OER K-5 Math Program and Implementation Guide* offers guidance on effectively introducing new concepts, particularly when introducing new terminology. It recommends having students explore the meanings of new key terms through interactive discussions and turn-and-talk strategies. The Concept Development section organizes teacher guidance in a linear vignette format, facilitating the clear integration of each element within the lesson cycle.
- Margin notes within each lesson provide additional guidance to support teachers in modeling, explaining, and communicating the concepts to be learned. These notes offer specific advice on how to effectively model, explain, or communicate particular content. For example, in Module 7, Lesson 4, the "Notes on Multiple Means of Representation" provide teachers with guidance on modeling the "Application Problem."
- Lessons in each module are grouped into topics, and each topic includes an overview that offers guidance to support teachers. The overview for Topic A provides explicit direction on how to model, explain, and communicate the concept directly and effectively.

Materials include teacher guidance and recommendations for effective lesson delivery and facilitation using a variety of instructional approaches.

- The course materials feature comprehensive teacher guidance for effective lesson delivery, incorporating a variety of instructional approaches. These include cooperative learning, read/draw/write activities, paired learning, discourse, and concept debriefs. Each lesson includes strategically placed margin notes that offer suggestions for differentiation, such as extending student thinking and connecting new concepts to prior knowledge. For instance, Module 1, Lesson 15, "Notes on Multiple Means of Action and Expression," section recommends scaffolding, adjusting speech rate, and utilizing visual aids to deepen understanding and foster critical thinking.
- Lessons provide guidance on facilitating effective learning experiences through various instructional methods, such as daily lesson vignettes, question strategies, group work, and peer teaching. They emphasize hands-on learning with manipulatives, real-life objects, and graphic organizers to actively engage students.
- The materials offer teacher guidance on effective lesson facilitation, encouraging reflective practice, peer teaching and learning, and collaborative learning approaches. These instructional strategies are integrated throughout the lesson, including within the "Student Debrief" section, which provides guided instructions to facilitate reflection and discussion of lesson concepts.

Materials support multiple types of practice (e.g., guided, independent, collaborative) and include guidance for teachers and recommended structures (e.g., whole group, small group, individual) to support effective implementation.

- Each lesson in the course materials is designed to foster student proficiency of concepts through a variety of practice modalities, including modeled, guided, collaborative, and independent structures. Lessons are structured sequentially to include "Fluency Practice," Application Problems, Concept Development, and a Student Debrief. The materials incorporate independent practice opportunities at the end of each lesson, such as exit tickets, problem sets, and homework assignments. The "Lesson Structure" section of the *OER K-5 Math Program and Implementation Guide* offers guidance on effectively implementing each component and explains their respective purposes.
- The lesson materials provide comprehensive support for diverse practice approaches, utilizing whole group, small group, paired, and individual learning structures within each lesson cycle. The *OER K-5 Math Program and Implementation Guide* offers teacher suggestions for organizing small groups and paired learning teams to enhance lesson effectiveness. This section outlines the objectives of each lesson component, offering scaffolding, accommodations, and differentiation strategies to support the needs of all learners.

Supports for All Learners

3.3	Supports for Emergent Bilingual Students	10/11
3.3a	Materials include teacher guidance on providing linguistic accommodations for various 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.	**1/2**
3.3b	Materials include implementation guidance to support teachers in effectively using the materials in state-approved bilingual/ESL programs.	**1/1**
3.3c	Materials include embedded guidance for teachers to support emergent bilingual students in developing academic vocabulary, increasing comprehension, building background knowledge, and making cross-linguistic connections through oral and written discourse.	**8/8**
3.3d	If designed for dual language immersion (DLI) programs, materials include resources that outline opportunities to address metalinguistic transfer from English to the partner language.	**Not scored**

The materials include teacher guidance on providing linguistic accommodations for at least one level of language proficiency [as defined by the English Language Proficiency Standards (ELPS)], which are designed to engage students in using increasingly more academic language. Materials do not include teacher guidance for linguistic accommodations at more than one level of language proficiency [as defined by the English Language Proficiency Standards (ELPS)], which are designed to engage students in using increasingly more academic language. Materials include implementation guidance to support teachers in effectively using the materials in state-approved bilingual/ESL programs. Materials include embedded guidance for teachers to support emergent bilingual students in developing academic vocabulary, increasing comprehension, building background knowledge, and making cross-linguistic connections through oral and written discourse.

Evidence includes, but is not limited to:

Materials include teacher guidance on providing linguistic accommodations for various 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 3 Teacher Edition* offers linguistic accommodations through margin notes in lesson plan materials. These accommodations provide teacher guidance on supporting understanding and fostering academic language acquisition for emergent bilingual students. For instance, supports include utilizing anchor charts, sentence stems, graphic organizers, partner activities, strategic grouping, and visuals.
- The "Emergent Bilingual" section of the *OER K-5 Math Program and Implementation Guide* offers teachers guidance on employing linguistic accommodations for emergent bilingual students to enhance vocabulary, comprehension, and knowledge acquisition. It also includes language routines to reinforce understanding of new key terms.

- The materials include guidance to support students who have different levels of English language proficiency. For example, in the *OER K-5 Math Program and Implementation Guide*, two sections that include guidance on supporting students who have different levels of English language proficiency: "Structuring Student Groupings" section and "Linguistic Accommodations for EB Students to Build Comprehension and Knowledge" section. The guidance is not specific to using linguistic accommodations to address proficiency levels and engage students in using increasingly more academic language.

Materials include implementation guidance to support teachers in effectively using the materials in state-approved bilingual/ESL programs.

- The *OER K-5 Math Program and Implementation Guide* includes a section titled "Support for Emergent Bilingual Students," which offers guidance on the four-part lesson design, linguistic accommodations for building vocabulary, research-based language routines for introducing new key terms, and strategies to improve comprehension. For instance, teachers receive guidance on implementing a "Collect and Display Language Routine" within the lesson cycle to aid in academic language acquisition as outlined in the ELPS.
- Lesson plans incorporate margin notes that outline accommodations for supporting emergent bilingual students aligned with ELPS through "Multiple Means of Engagement, Representation, and Action." These scaffolds and supports propose modifications to activities to cater to the needs of emergent bilingual students. They include guidance on acquiring vocabulary, fostering language development related to specific topics, and assisting teachers in effectively utilizing sentence stems to aid students. Accommodations encompass strategies like turn-and-talk discussions, clarifying vocabulary using charts and visuals, and supplying templates, as well as graphic organizers.

Materials include embedded guidance for teachers 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 3 Teacher Edition* supports oral discourse through various strategies. Lessons emphasize building academic vocabulary with visual aids and using gestures and background knowledge to clarify unfamiliar words. Additionally, the module includes strategies like recording student responses and providing extra practice time to enhance oral communication. The "Fluency Practice" component aims to build or activate background knowledge.
- Lesson plan materials promote cross-linguistic connections by allowing students to discuss mathematical reasoning in their preferred language. In the "Terminology" section of the "Module Overview," Spanish cognates are included when a term has a similar meaning and spelling in English, supporting emergent bilingual students who speak Spanish. To improve written discourse, lesson plans guide teachers in supporting students who need more practice by offering a word bank for constructing written responses. They suggest using sentence frames or prompts to assist students during written activities and facilitating

discussions. Furthermore, teachers are encouraged to pair emergent bilingual students with peers to support reading tasks aloud and help with written responses.

- Individual lesson components align with ELPS standards, aiming to enhance comprehension in the "Concept Development" and "Student Debrief" sections. Teacher vignettes encourage strategic questioning that prompts students to use academic vocabulary in their explanations and relate concepts to familiar experiences.

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

- The material is not designed for dual language immersion (DLI) programs.
- Materials include resources addressing metalinguistic transfer from English to the partner language. For example, the *OER K-5 Math Program and Implementation Guide* includes a section to support emergent bilingual students. This section identifies the student debrief portion of the lesson as a support for metacognitive and metalinguistic thinking. Materials state the effect of lowering students' affective filters through routine lesson delivery as metalinguistic thinking support.

Depth and Coherence of Key Concepts

4.1	Depth of Key Concepts	3/3
4.1a	Practice opportunities over the course of a lesson and/or unit (including instructional assessments) require students to demonstrate depth of understanding aligned to the TEKS.	**1/1**
4.1b	Questions and tasks progressively increase in rigor and complexity, leading to grade-level proficiency in the mathematics standards.	**2/2**

The materials include practice opportunities over the course of a lesson and/or unit (including instructional assessments) require students to demonstrate depth of understanding aligned to the TEKS. Materials include questions and tasks that progressively increase in rigor and complexity, leading to grade-level proficiency in the mathematics standards.

Evidence includes, but is not limited to:

Practice opportunities over the course of a lesson and/or unit (including instructional assessments) require students to demonstrate depth of understanding aligned to the TEKS.

- The grade 3 materials include practice opportunities in the lessons that require students to demonstrate depth of understanding aligned to the TEKS. Information within the *OER K-5 Math Program and Implementation Guide* describes instruction components. It states, "These components are taught through the deliberate progression of material from concrete to representational to abstract. Lesson components and stages of instruction within these components are designed to help students reach higher and higher levels of understanding." Lesson-level practice includes procedural and application practice aligned to the TEKS 3.4G. For example, Module 3, Lesson 20, "Problem Set," includes opportunities for students to show their multiplication thinking with place value disks and place value charts alongside the algorithm. The last two problems of the Problem Set include multiplication in the context of real-world problems.
- The materials include mid-module and end-of-module assessments for students to demonstrate depth of understanding aligned to the Texas Essential Knowledge and Skills (TEKS) and specific to each module's content. The *Grade 3 Assessments Teacher Edition* overview provides information about the assessment question types. Summative assessment questions come in formats that include constructed response, multiple choice, and multi-select, in which students demonstrate their comprehensive understanding and proficiency of the module concepts. The "Progression Toward Proficiency" rubric for mid-module and end-of-module assessments describes how the students show their understanding with increasing proficiency. The rubric defines the depth of understanding aligned to the TEKS. For example, Module 1, "Mid-Module Assessment Task," provides proficiency guidance for question 1 aligned to TEKS 3.4D. To receive full points for this question, the rubric indicates that students should correctly draw an array and include an equation with a solution.
- The final lesson of each module provides practice in which students engage in tasks that include problem-solving and real-world problems that align with the TEKS. For example, in

Module 1, Lesson 19, students utilize the tools, representations, and concepts to demonstrate proficiency in multi-step word problems involving all four arithmetic operations.

Questions and tasks progressively increase in rigor and complexity, leading to grade-level proficiency in the mathematics standards.

- In the Concept Development section of each lesson, tasks progressively increase in rigor and complexity. For example, in Module 7, Lesson 14, tasks increase in rigor across three levels of depth of knowledge: comparing areas of differently sized rectangles, calculating perimeter, and collaboratively solving problems with a partner to incorporate critical thinking and peer discussion, leading to grade-level proficiency in TEKS.

Depth and Coherence of Key Concepts

4.2	Coherence of Key Concepts	12/12
4.2a	Materials demonstrate coherence across courses/grade bands through a logically sequenced and connected scope and sequence.	**2/2**
4.2b	Materials demonstrate coherence across units by explicitly connecting patterns, big ideas, and relationships between mathematical concepts.	**3/3**
4.2c	Materials demonstrate coherence across units by connecting the content and language learned in previous courses/grade levels and what will be learned in future courses/grade levels to the content to be learned in the current course/grade level.	**3/3**
4.2d	Materials demonstrate coherence at the lesson level by connecting students' prior knowledge of concepts and procedures from the current and prior grade level(s) to new mathematical knowledge and skills.	**4/4**

The materials demonstrate coherence across courses/grade bands through a logically sequenced and connected scope and sequence. Materials demonstrate coherence across units by explicitly connecting patterns, big ideas, and relationships between mathematical concepts. Materials demonstrate coherence across units by connecting the content and language learned in previous courses/grade levels and what will be learned in future courses/grade levels to the content to be learned in the current course/grade level. Materials demonstrate coherence at the lesson level by connecting students' prior knowledge of concepts and procedures from the current and prior grade level(s) to new mathematical knowledge and skills.

Evidence includes, but is not limited to:

Materials demonstrate coherence across courses/grade bands through a logically sequenced and connected scope and sequence.

- The materials demonstrate coherence across grade levels through a logical and connecting scope and sequence. For example, Module 1 establishes a foundation in multiplicative thinking, building upon the concepts introduced in grade 2. This logical progression continues through subsequent modules, such as Module 2, which focuses on place value and problem-solving using units of measure, and Module 3, where multiplication and division concepts are applied to more complex units. Module 7 integrates concepts from throughout the year. Additionally, the scope and sequence include show representations and tools for problem-solving that are consistently used across grade levels. For example, in grade 3, students utilize a place value chart to understand the value of digits in numbers and for comparing and ordering numbers up to 100,000. This foundational use of the place value chart extends into grade 4 and grade 5, where students apply and expand this understanding to larger numbers in the billions and with decimals.
- The materials demonstrate coherence across the grade bands. The *Grade 3 Course Guide* includes a "Progression of Mathematical Concepts" chart, color-coded by mathematical strand, which outlines the vertical alignment and sequence of grade-level modules (units)

from Kindergarten through grade 5. For example, in grade 2, the focus is on fractions as equal parts of shapes, while grade 3 focuses on fractions as numbers or on a number line. In grade 4, the focus is on fraction equivalence, ordering, and comparison, and in grade 5, the focus is on operations with fractions.

Materials demonstrate coherence across units by explicitly connecting patterns, big ideas, and relationships between mathematical concepts.

- The materials include a "Topic Overview" within every module, demonstrating coherence by linking lessons and explaining connections among patterns, key concepts, and mathematical relationships within the topic. The overviews include teacher guidance for each focus standard while emphasizing the overall coherence. The overviews provide guidance on how big ideas connect within and across modules. For example, Module 3, "Module Overview," says, "At this point, Module 1 instruction coupled with fluency practice in Module 2 has students well on their way to meeting the Grade 3 fluency expectation for multiplying and dividing within 100."
- The materials include coherence across units by explicitly linking the current concept to previous and upcoming ones. For example, in Module 2, Lesson 4, the "Fluency Practice" reviews foundational multiplication strategies from Module 1 and also connects to the skills in Module 3.
- The materials connect patterns between mathematical concepts. The *Grade 3 Course Guide* states, "Modules 1 and 3 progressively lead to the area model (the fourth model in the following image), using rectangular arrays in the context of learning multiplication and division. This foundational work prepares students to apply the area model to two-digit by one-digit multiplication and deepen their understanding of the area in Module 4."
- The materials apply the "Concrete-Representational-Abstract" approach across modules, lessons, and grade levels. This consistent approach demonstrates coherence by connecting mathematical patterns throughout the instructional materials.

Materials demonstrate coherence across units by connecting the content and language learned in previous courses/grade levels and what will be learned in future courses/grade levels to the content to be learned in the current course/grade level.

- The course Module Overview demonstrates coherence across units. The *OER K-5 Math Program and Implementation Guide* states, "the module's placement in the overall development of learning in and across the grade levels." For example, in Module 2, students measure liquid volume in liters using beakers, laying a conceptual foundation for grade 4 work with milliliters and the multiplicative relationships of metric units.
- The materials demonstrate the coherence of language learned previously in the course and in other grade levels. Each module includes a "Terminology" section with a "Familiar Terms and Symbols" subsection, linking vocabulary from previous units and grade levels to the current module's content. This section provides definitions and visual models to reinforce understanding of these terms in context.

- The *Grade 3 Course Guide*'s "Progression of Mathematical Concepts" chart provides a vertical alignment of mathematical concepts across grade levels, illustrating their connection to future course content for upcoming grade levels. The chart highlights the alignment of grade 4 learning with the scope and sequence of grade 3 materials. This chart shows the continuity and progression in mathematical content across units and grade levels.

Materials demonstrate coherence at the lesson level by connecting students' prior knowledge of concepts and procedures from the current and prior grade level(s) to new mathematical knowledge and skills.

- The materials demonstrate coherence at the lesson level by connecting students' prior knowledge of concepts and procedures from the current grade level to new grade-level content. Lessons are designed to include application problems that review concepts and procedures from prior learning in the current grade level. Fluency practice reviews concepts and procedures from previous grade levels, reinforcing foundational skills in preparation for current learning. The "Concept Development" component and margin notes in lesson materials include guidance for teachers on how to help students connect their prior learning with new concepts introduced in the lesson.
- The Topic Overviews include guidance on how concepts and procedures in lessons connect and build on each other. For example, in Module 4, Topic A, Lesson 2, students build rectangles using unit square tiles to make arrays. In Lesson 3, using experience with drawing rectangular arrays inside an area model, students find the area of an incomplete array. Students connect these representations to solving area problems by skip counting and then multiplying the length (column) by the width (row).
- The lesson materials demonstrate coherence at the lesson level by using familiar procedures to introduce new mathematical concepts. For example, across different grade levels, the materials include opportunities to create number bonds. In Module 7, Lesson 1, the materials include the "Read–Draw–Write" (RDW) process, used in previous lessons, to solve word problems involving cost calculations and multiple operations.

Depth and Coherence of Key Concepts

4.3	Spaced and Interleaved Practice	8/8
4.3a	Materials provide spaced retrieval opportunities with previously learned skills and concepts across lessons and units.	**4/4**
4.3b	Materials provide interleaved practice opportunities with previously learned skills and concepts across lessons and units.	**4/4**

The materials provide space retrieval opportunities with previously learned skills and concepts across lessons and units. Materials provide interleaved practice opportunities with previously learned skills and concepts across lessons and units.

Evidence includes, but is not limited to:

Materials provide spaced retrieval opportunities with previously learned skills and concepts across lessons and units.

- The course materials include key lesson components that facilitate learning through spaced retrieval of previously acquired knowledge and skills. At the lesson level, "Fluency Practice" involves mental math exercises that revisit previous skills from current and prior modules. For example, before a lesson on solving measurement word problems using estimation, students engage in an estimation sprint and practice using subtraction algorithms with measurements.
- "Application Problems" provide spaced retrieval opportunities to solve word problems using various techniques such as strip diagrams, number bonds, and arrays. For example, students can use a strip diagram to model the Application Problem in Module 2, Lesson 1. This problem provides a real-world scenario of time for shoe tying and asks students how long it would take to tie the shoes multiple times. The note below the problem states, "This reviews multiplication from Module 1 and gets students thinking about how long it takes to complete an activity or task. It leads into the Concept Development by previewing the idea of seconds as a unit of time."
- Sometimes, the "Student Debrief" section integrates spaced retrieval practice. Students revisit previously learned skills and concepts through targeted questions and reflection points, making connections between previously learned skills across lessons. For example, in Module 4, Lesson 2, the Student Debrief section includes the question, "How is a spring scale like a number line?" Module 1 includes number lines and connects to this learning in Module 4.
- Course materials offer retrieval opportunities through assessments found in the *Assessments* book. Each module includes Mid and End-of-Module assessments aligned with the TEKS, assessing students' proficiency in each module's concepts.

Materials provide interleaved practice opportunities with previously learned skills and concepts across lessons and units.

- The course materials include interleaved practice of previously learned skills and concepts. For example, in Module 5, Lesson 22, teacher guidance provides prompts for students in the student debrief, such as, "Are there other ways to partition the fraction strips to represent eighths?" This approach allows students to revisit and apply different methods.
- The Fluency Practice supports skills in the upcoming lesson. These activities align with current lesson concepts, providing ongoing practice. For example, Module 3, Lesson 1, includes a fluency practice to review multiplication by 1. The notes indicate this fluency anticipates the learning in "Concept Development."
- The materials also incorporate interleaved practice through "Application Problems," where students determine the most effective operations and strategies to solve problems. The application problem includes prior learning recall, critical thinking demands, and the application of skills in varied contexts.
- The materials revisit and apply previously learned concepts throughout each unit. For example, in Module 7, students use repeated addition, skip counting, and multiplication to determine measurements like area or perimeter. Using this approach, foundational skills are reinforced and applied in increasingly complex scenarios.

Balance of Conceptual and Procedural Understanding

5.1	Development of Conceptual Understanding	18/18
5.1a	Questions and tasks require students to interpret, analyze, and evaluate a variety of models and representations for mathematical concepts and situations.	**12/12**
5.1b	Questions and tasks require students to create a variety of models to represent mathematical situations.	**2/2**
5.1c	Questions and tasks provide opportunities for students to apply conceptual understanding to new problem situations and contexts.	**4/4**

The questions and tasks require students to interpret, analyze, and evaluate a variety of models and representations for mathematical concepts and situations. Questions and tasks require students to create a variety of models to represent mathematical situations. Questions and tasks provide opportunities for students to apply conceptual understanding to new problem situations and contexts.

Evidence includes, but is not limited to:

Questions and tasks require students to interpret, analyze, and evaluate a variety of models and representations for mathematical concepts and situations.

- Lesson tasks include opportunities for students to engage with mathematical concepts through interpreting, analyzing, and evaluating using a range of representations. In Module 5, Lesson 6, "Concept Development," the materials prompt students to use two-dimensional shapes like rhombi and hexagons, along with strip diagrams and number lines, to analyze and interpret fractions.
- The lesson structure provides opportunities for students to interact with diverse models and representations and supports their work to interpret, analyze, and evaluate different mathematical concepts. For example, in Module 1, students engage with base ten blocks, counters, place value disks, strip diagrams, number bonds, and arrays. Specifically, Module 1, Lesson 19, Problem Set, provides strip diagrams for students to analyze and interpret in order to generate an equation to solve.
- The materials include questions within lessons to prompt students to interact with various models and representations, enabling them to interpret, analyze, and evaluate different concepts. For example, in the Concept Development of Module 7, Lesson 1, teacher guidance asks students to solve word problems using different representations. In Module 4, Lesson 2, teacher guidance asks students various scaffolding questions involving comparing and relating problems, analyzing situations, and evaluating adjustments during the "Student Debrief."
- The materials include questions for students to construct diverse models to illustrate mathematical concepts. For example, in Module 4, Lesson 2, Concept Development, the lesson prompts students to initially interpret a concrete area model. As the lesson advances, the focus shifts to adjusting the model and prompting analysis of the modifications made. By

the conclusion of the activity, teacher guidance prompts students to evaluate solutions related to the area model.

Questions and tasks require students to create a variety of models to represent mathematical situations.

- The course materials include tasks that prompt students to create diverse models to represent mathematical situations. For example, in Module 2, Lesson 19, Concept Development, the lesson tasks students with constructing a place value chart and modeling a number using place value disks. After creating the concrete model, materials prompt students to transition from using physical objects to employing dots as a written representation. The four problems offer diverse representations in the place value model.
- Each lesson component includes questions that require students to create a variety of models to represent mathematical situations. For example, in Module 2, Lesson 11, the "Fluency Practice" asks students to create number bonds to decompose minutes, the "Application Problem" asks students to create a model to solve a word problem, and the Concept Development, "Problem Set," and "Exit Ticket" includes scaffolding questions that require students to represent expanded form using a place value chart.
- Lesson components include questions and tasks across the instructional materials that require students to construct various models that illustrate mathematical scenarios. For example, in grade 3, materials provide opportunities for students to utilize a range of tools such as place value disks, counters, arrays, ten-frames, number bonds, fraction strips, strip diagrams, and area models to visualize and solve mathematical problems. These models develop conceptual understanding and are practical tools in real-world applications in tasks within the Problem Set and Exit Ticket components.
- Application Problems within the instructional materials require students to employ models as part of strategic problem-solving techniques, such as the "Read-Draw-Write" strategy. This process prompts students to select appropriate models, such as strip diagrams, number bonds, area models, or other visual aids.

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

- Students are provided opportunities in each module to apply their conceptual understanding to new and complex problem situations. Both teacher-guided facilitation questions and guided practice questions in Concept Development and Problem Set components support comprehension and apply learning from previous lessons. For instance, in Module 4, Lesson 1, materials provide an opportunity for students to compare areas of different rectangles, explain their approach to peers, and justify their choice of units (such as square inches vs. square centimeters).
- The Fluency Practice and Application Problem tasks activate students' prior knowledge and allow them to apply conceptual understanding in various contexts. The Concept Development introduces new tasks while integrating prior learning of mathematical concepts. For example,

Module 1, Lesson 3, uses unit form, a form that builds a conceptual understanding of units, to build an understanding of the distributive property of multiplication. The lesson incorporates the use of the number bond, another conceptual model from earlier grades, to model 7 x 3 as a total of 7 threes decomposed into 5 threes and 2 threes.

- The Student Debrief in lessons includes questions that prompt students to apply conceptual understanding by comparing, explaining, and justifying their answers. In Module 3, Lesson 8, the materials include prompts for students to discuss different strategies for solving multiplication problems, explain their reasoning, and justify their preferred method.

Balance of Conceptual and Procedural Understanding

5.2	Development of Fluency	12/12
5.2a	Materials provide tasks that are designed to build student automaticity and fluency necessary to complete grade-level tasks.	**2/2**
5.2b	Materials provide opportunities for students to practice the application of efficient, flexible, and accurate mathematical procedures within the lesson and/or throughout a unit.	**3/3**
5.2c	Materials provide opportunities for students to evaluate procedures, processes, and solutions for efficiency, flexibility, and accuracy within the lesson and throughout a unit.	**6/6**
5.2d	Materials contain embedded supports for teachers to guide students toward increasingly efficient approaches.	**1/1**

The materials provide tasks that are designed to build student automaticity and fluency necessary to complete grade-level tasks. Materials provide opportunities for students to practice the application of efficient, flexible, and accurate mathematical procedures within the lesson and/or throughout a unit. Materials provide opportunities for students to evaluate procedures, processes, and solutions for efficiency, flexibility, and accuracy within the lesson and throughout a unit. Materials contain embedded supports for teachers to guide students toward increasingly efficient approaches.

Evidence includes, but is not limited to:

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

- The "Fluency Practice" lesson component features "Sprints" in selected lessons throughout each module (unit) of the course materials. Sprints are timed fluency exercises intended to help students identify patterns and solve increasingly complex problems. For instance, in Module 1, Lesson 2, students start with the basic addition of two problems and progress to the simple subtraction of two problems. In the same lesson, they advance to adding 22 to larger two-digit and three-digit numbers.
- According to the *OER K-5 Math Program and Implementation Guide*, Sprints "are carefully selected and sequenced to help students recognize patterns and structures to solve subsequent, more complex problems." These exercises support students in developing the automaticity needed to solve grade-level tasks. Sprint tasks encompass a range of skills such as recalling math facts, computational patterns with whole numbers and grade-appropriate rational numbers, rounding, estimation, and simplifying fractions.
- Lessons within the course materials encompass both Fluency Practice and "Application Problem" components. These components support students in developing the fluency necessary for grade-level tasks. Fluency Practice tasks "offer spaced practice with previously learned material and prepare students for new learning by activating prior knowledge," with a primary emphasis on procedural fluency. Application Problem tasks, on the other hand, "apply

conceptual understanding to make sense of and persevere through new problems," supporting fluency with the "Read-Draw-Write" process that includes flexible thinking strategies in problem-solving contexts.
- The "Concept Development" components support student fluency by providing teachers with guidance to facilitate exploration and discussion of various problem-solving approaches with newly introduced mathematical concepts.

Materials provide opportunities for students to practice the application of efficient, flexible, and accurate mathematical procedures within the lesson and/or throughout a unit.

- Within the lesson components, prompts for students ask for the application of efficient, flexible, and accurate mathematical procedures. For example, Module 3, Lesson 3, includes the Fluency Practice of "Multiplying a Number by Itself" and the "Commutative Property of Multiplication." In the fluency Multiplying a Number by Itself, students recognize patterns when multiplying by one. The fluency note states, "Students will review multiplying by 1 in anticipation of today's lesson." The Commutative Property of Multiplication activity supports students' recognition of the same product with arrays in different configurations. The fluency note states, "This fluency reviews the commutative property of multiplication and anticipates its use in today's lesson."
- The lesson structure in the course materials provides opportunities for students to use efficient, flexible, and accurate mathematical procedures when tackling both new and previously learned concepts. For instance, in Module 2, Lesson 20, students use mental math, place value disks, and the standard algorithm to solve addition problems throughout the lesson. As the lesson progresses, students choose and apply their preferred strategy to address these addition challenges.
- The *OER K-5 Math Program and Implementation Guide* states, "The Problem Set often includes fluency pertaining to the Concept Development as well as conceptual understanding and application word problems." For example, Module 3, Lesson 1 Problem Set directs students to "Solve. Show your work with strip diagrams and an equation." This is further practice of the activities from the Concept Development Lesson.

Materials provide opportunities for students to evaluate procedures, processes, and solutions for efficiency, flexibility, and accuracy within the lesson and throughout a unit.

- Lesson components within the materials provide opportunities for students to apply flexible, accurate, and efficient mathematical procedures throughout their learning. For instance, Application Problems prompt students to apply previously learned models and strategies to solve real-world scenarios by choosing the most suitable approach for the problem concept. Additionally, "Student Debrief" sessions provide opportunities for students to explore alternative solution methods and engage in peer conversations, including reflection and refinement of their problem-solving techniques.
- The materials include the application of accurate mathematical procedures through "Problem Sets." These sets direct students to use a variety of strategies to solve problems and approach

mathematical challenges in a way of their choosing. For example, in Module 3, Lesson 23, the problem set includes the question, "Eva wants to make a lid for a small wooden box. She needs 5 pieces of wood each 14 centimeters long. How many centimeters of wood does she need?" There is no directed strategy students must use to solve this problem, allowing students to use any strategy of their choosing. Similarly, Concept Development activities support students in integrating new learning goals into their existing knowledge. The Concept Development section provides guidance for teacher modeling and prompting students through problem-solving to support student understanding of mathematical concepts.

Materials contain embedded supports for teachers to guide students toward increasingly efficient approaches.

- Teacher guidance includes questioning to provide opportunities for students to evaluate procedures, processes, and solutions for efficiency within the lesson. In Concept Development, the teacher guides students through a variety of problems. These problems offer varying tasks involving multiple strategies, including the Read-Draw-Write process, the use of concrete models, and the chance to explain their thinking. For example, Module 3, Lesson 23 vignette, prompts the teacher to ask students to explain efficiency with the question, "What are the advantages to the standard algorithm?" The example student response is, "We are doing all of the calculations in fewer steps. "
- Concept Development includes a vignette to guide teachers to prompt students to evaluate procedures, processes, and solutions related to new math concepts for efficiency, flexibility, and accuracy. For example, in Module 2, Lesson 20, students use multiple strategies to solve measurement addition problems. When introducing the standard algorithm, the Concept Development guides teachers to say, "Talk to a partner. How is this work similar to the work we did with the place value disks?"
- The Student Debrief, a key component in every lesson of the course modules, provides teacher prompts to guide students in evaluating the efficiency, flexibility, and accuracy of procedures, processes, and solutions for new math concepts. For example, in Module 2, Lesson 20, students solve measurement addition problems using various strategies. Teacher prompts include questions like, "What pattern did you notice between Problems 1(a), 1(b), and 1(c)? How did this pattern help you solve the problems?" and "Which problems did you solve using mental math? The standard algorithm? Why did you use the standard algorithm for some problems and mental math for others?" These questions ask students to reflect on and articulate their reasoning for choosing specific problem-solving methods. The questions also prompt students to evaluate their approaches within the lesson, supporting peer comparison and encouraging students to justify and explain their strategies.

Balance of Conceptual and Procedural Understanding

5.3	Balance of Conceptual Understanding and Procedural Fluency	16/16
5.3a	Materials explicitly state how the conceptual and procedural emphasis of the TEKS are addressed.	**2/2**
5.3b	Questions and tasks include the use of concrete models and manipulatives, pictorial representation (figures/drawings), and abstract representations.	**6/6**
5.3c	Materials include supports for students in connecting, creating, defining, and explaining concrete and representational models to abstract (symbolic/numeric/algorithmic) concepts.	**8/8**

The materials explicitly state how the conceptual and procedural emphasis of the TEKS are addressed. Questions and tasks include the use of concrete models and manipulatives, pictorial representation (figures/drawings), and abstract representations. Materials include supports for students in connecting, creating, defining, and explaining concrete and representational models to abstract (symbolic/numeric/algorithmic) concepts.

Evidence includes, but is not limited to:

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

- Each "Module Overview" lists the "Focus Standards," "Foundational Standards," and "TEKS Mathematical Process Standards." The "Module 3 Overview" statement includes information about how the conceptual and procedural emphasis of the TEKS appears within the module. The description of conceptual and procedural emphasis for Topic A states, "Students will work from simple to complex, starting with strips of paper, transitioning to strip diagrams, and then using number pairs in a table." In Topic G, students use a conceptual understanding of the place value chart to represent multiples of units such as three tens. This conceptual understanding builds to student tasks with the algorithm of a two-digit by a one-digit number later in the module.
- "Topic Overviews" describe in more detail the conceptual and procedural emphasis of the TEKS. For example, in Module 3, the Topic B Overview describes the conceptual emphasis of the TEKS as students using jumps on a number line to practice skip-counting. Rotating area models and using number bonds with unit form also provide opportunities to build conceptual understanding. In Topic B, students transition from array models to a more representative model of a box to represent facts. At the end of Topic C, opportunities in the final lesson of the topic move to procedural tasks as students analyze word problems and solve for unknowns.

Questions and tasks include the use of concrete models and manipulatives, pictorial representation (figures/drawings), and abstract representations.

- The materials include questions and tasks that use concrete models and manipulatives. For example, in Module 4, Lesson 4, "Concept Development" Part 1 section, teacher guidance prompts students to create a square figure using square-inch tiles to find the area of the shape. The "Problem Set" asks a question about the area in an abstract context and prompts students to use their own pictures, words, and numbers to solve it.
- Materials include questions and tasks that use pictorial representations. For example, in Module 4, Lesson 4, the Concept Development Part 2 section prompts students to draw an area model of their manipulative model. The "Area Model Template" for the lesson provides a pictorial representation of the area within grid lines to support the vignette and student work during Concept Development.
- Lesson materials incorporate questions and tasks using abstract representations. For instance, in Module 4, Lesson 4, "Problem Set," students use standard numbers to label square units in an area model and solve for the area using multiplication.
- Lesson components feature questions and tasks integrating concrete models, manipulatives, and pictorial representations. For example, fraction rods illustrate fractions, connecting to pictorial models, strip diagrams, and number bonds. Teachers guide students with explicit questions like, "Now we need a strip to represent the purple rods. How long should the second strip be?"
- Modules and lessons sequence learning to support conceptual understanding by linking concrete models and pictorial representations to abstract concepts such as algorithms and equations. Questions prompt students to explain relationships among models, pictorial representations, and abstract concepts. Hands-on activities with manipulatives in lessons support diverse representations.

Materials include supports for students in connecting, creating, defining, and explaining concrete and representational models to abstract (symbolic/numeric/algorithmic) concepts.

- The modules (units) in the course include instructional sequencing of concepts and lessons using the "concrete-representational-abstract approach." Explicit teacher guidance and exemplars for supporting students in connecting, creating, defining, and explaining both concrete and representational models to abstract thinking often appear in the "Student Debrief." For example, Module 4, Lesson 8, Student Debrief, includes the teacher prompt, "Why did Tila and Evan wind up with the same amount of paper in Problem 4? If they both cut their rectangles from the corners of their papers, would they both be able to cut out a 4-cm by 8-cm rectangle with their remaining paper? (Guide students to reason that, although they both have 42 sq cm left and the 4 × 8 rectangle only measures 32 sq cm, only Evan can cut out such a rectangle from his remaining paper.)" Another example in Module 2, Lesson 3, questions include, "Describe the process of drawing the number line for Problem 2." and "How did your answer to Problem 4(a) help you solve Problem 4(b)?"
- Concept Development includes scaffolds to support students in connecting, creating, defining, and explaining concrete and representational models to abstract concepts. For

example, across Module 5, students begin by representing fractions using fractional strips and move to represent fractions with strip diagrams and on number lines to represent equivalent fractions in symbolic form.

- Additional supports for students beyond Tier 1 lesson materials appear in the "Collaboratively Troubleshooting Student Misconceptions" section of each module (unit) overview, and margin notes are provided within individual lessons in the modules. These resources suggest ways for teachers to provide additional support for students in connecting, creating, defining, and explaining both concrete and representational models to abstract thinking through scaffolded instruction and extension tasks. For example, the margin note in Module 4, Lesson 8, states, "Adjust the numbers in Problem 2 of the Concept Development to challenge students who have demonstrated proficiency in grade level content and skills. Or, offer an alternative challenge, such as scripting and recording the steps to find the area of a nonrectangular shape that they can refer to when needed."

Balance of Conceptual and Procedural Understanding

5.4	Development of Academic Mathematical Language	14/14
5.4a	Materials provide opportunities for students to develop their academic mathematical language using visuals, manipulatives, and other language development strategies.	**3/3**
5.4b	Materials include embedded guidance for the teacher addressing scaffolding and supporting student development and use of academic mathematical vocabulary in context.	**2/2**
5.4c	Materials include embedded guidance for the teacher to support the application of appropriate mathematical language to include vocabulary, syntax, and discourse to include guidance to support mathematical conversations that provide opportunities for students to hear, refine, and use math language with peers and develop their math language toolkit over time as well as guide teachers to support student responses using exemplar responses to questions and tasks.	**9/9**

The materials provide opportunities for students to develop their academic mathematical language using visuals, manipulatives, and other language development strategies. Materials include embedded guidance for the teacher addressing scaffolding and supporting student development and use of academic mathematical vocabulary in context. Materials include embedded guidance for the teacher to support the application of appropriate mathematical language to include vocabulary, syntax, and discourse to include guidance to support mathematical conversations that provide opportunities for students to hear, refine, and use math language with peers and develop their math language toolkit over time as well as guide teachers to support student responses using exemplar responses to questions and tasks.

Evidence includes, but is not limited to:

Materials provide opportunities for students to develop their academic mathematical language using visuals, manipulatives, and other language development strategies.

- The materials offer various opportunities for students to develop their academic mathematical language through the use of visuals. In Lesson 7's "Application Problem," students engage in sorting 3-D shapes into groups, describing their sorts based on shape attributes using academic vocabulary. Additionally, lesson components encourage students to utilize visuals by drawing models to represent mathematical concepts, such as drawing equal groups to illustrate multiplication. These activities effectively support students in developing a deeper understanding and proficiency in mathematical language through visual representations.
- The materials actively support students in developing their academic language through the use of manipulatives. In Module 1, it's noted that students can employ concrete manipulatives to demonstrate their understanding while solving problems or explaining their reasoning. For instance, students use geoboards and rubber bands during "Concept Development" to visualize and name fraction units when dividing shapes into equal parts.
- The materials offer various strategies for students to enhance their academic mathematical language. Throughout the course, lessons facilitate the development of academic

mathematical language through strategies such as classroom discourse, peer conversations (like turn-and-talks), and collaborative learning tasks. These approaches are integrated into lesson components. For instance, Module 7, Lesson 7 notes suggest employing the turn-and-talk strategy to support language development during instruction. Additionally, sentence stems are provided to scaffold language use.

- During Concept Development and "Student Debrief sessions," students engage in peer interactions, using academic vocabulary to explain and justify their solutions as the materials show in the exemplar responses. The materials emphasize the use of visuals and manipulatives to introduce new vocabulary naturally within lesson activities. The "Problem Set" and "Exit Ticket" include the academic vocabulary from the lesson supporting the use of the words in context.

Materials include embedded guidance for the teacher addressing scaffolding and supporting student development and use of academic mathematical vocabulary in context.

- The materials introduce new or recently introduced terminology and also include a list of familiar terms and symbols. These lists, which can be found in every "Module Overview," can be used with students in various ways, including utilizing the visual supports to establish word walls or to 'encourage them to naturally use terminology as they respond in class to discussion questions or in Turn and Talks' as stated in the *OER K-5 Math Program and Implementation Guide* within the "Terminology" section.
- The *OER K-5 Math Program and Implementation Guide* outlines how margin notes serve to enhance comprehension through various presentation methods and support understanding of vocabulary and symbols. For example, the guide states, "Provide multiple means of representation by using a variety of methods to present information and support understanding of vocabulary and symbols to maximize comprehension." An example of how this vocabulary is highlighted within a margin note is in Module 1, Lesson 1. Within the "Notes on Multiple Means of Representation," a scaffold is given to support students to make a connection from grade 2 and help students review the words in grade 3. It is also noted in other margin notes within this module and across modules.
- When new terminology or vocabulary is introduced within a lesson, it is also then incorporated into several areas in the lesson. For example, sample student responses may use it, as noted in Module 1, Lesson 2, when within the vignette, the teacher introduces the word row, and then the student uses it in the exemplar responses.

Materials include embedded guidance for the teacher to support the application of appropriate mathematical language to include vocabulary, syntax, and discourse to include guidance to support mathematical conversations that provide opportunities for students to hear, refine, and use math language with peers and develop their math language toolkit over time as well as guide teachers to support student responses using exemplar responses to questions and tasks.

- The materials feature embedded guidance to assist teachers in facilitating the application of appropriate mathematical language within the Concept Development sections. These

sections introduce new terminology to students in context, formalize its use, and include guidance for students to participate in class discussions. The lesson vignettes provide teacher guidance to support math conversations that enable students to hear, refine, use, and develop their mathematical language toolkit. For instance, margin notes within several lessons include sentence frames that students can utilize during discourse to encourage the use of academic vocabulary. Module 5, Lesson 4, includes the following frames, "The fractional unit is _____. This group partitioned the _____ into _____ equal parts. This group used a different object to represent _____. This group used the same object as other groups to represent _____."

- The materials provide embedded guidance for teachers to support the application of appropriate mathematical language, encompassing vocabulary, syntax, and discourse during math conversations. The Concept Development and Student Debrief components include discussion questions to support mathematical discourse, enabling students to hear, use, and refine mathematical language among their peers. For example, Module 5, Lesson 4, Concept Development, includes a vignette with guidance for teachers: "T: What is similar about the ways the groups represented eighths? (As students share, invite them to select the objects they want to compare.) S: Each group partitioned the paper into eight equal parts and drew lines to show the equal parts.→ The groups all showed eighths by partitioning the objects into eight equal parts." When students compare models with peers, they have opportunities to hear other students speak about their models, which supports the refinement of their mathematical language.

Balance of Conceptual and Procedural Understanding

5.5	Process Standards Connections	6/6
5.5a	Process standards are integrated appropriately into the materials.	**1/1**
5.5b	Materials include a description of how process standards are incorporated and connected throughout the course.	**2/2**
5.5c	Materials include a description for each unit of how process standards are incorporated and connected throughout the unit.	**2/2**
5.5d	Materials include an overview of the process standards incorporated into each lesson.	**1/1**

The process standards are integrated appropriately into the materials. Materials include a description of how process standards are incorporated and connected throughout the course. Materials include a description for each unit of how process standards are incorporated and connected throughout the unit. Materials include an overview of the process standards incorporated into each lesson.

Evidence includes, but is not limited to:

Process standards are integrated appropriately into the materials.

- "Module Overviews" provide a list of the Texas Essential Knowledge and Skills (TEKS) Mathematical Process Standards (MPS) integrated into the modules. The Overview summary explains the integration of TEKS MPS into instructional design without explicitly naming them within the narrative.
- The *Grade 3 Course Guide* includes a chart listing TEKS MPS by lesson per module and a "Fluency Close-Up" detailing standards by concept (e.g., "Number and Operations"). For instance, it specifies, "The student applies TEKS Mathematical Process Standards to represent and compare whole numbers and understand relationships related to place value."

Materials include a description of how process standards are incorporated and connected throughout the course.

- The TEKS MPS section of the *K-5 Math Program and Implementation Guide* provides teacher guidance on how the TEKS MPS are integrated into the lesson structure. According to the *K-5 Math Program and Implementation Guide,* "They are seamlessly woven into the lesson structure to require the level of thinking and behaviors that the standards embody."
- In the *Grade 3 Course Guide*, the integration of TEKS MPS throughout the module is described, particularly in the "Development of Fluency" section. A table outlines each process standard and specifies the lesson in which it is incorporated, showing continuity throughout the module.

Materials include a description for each unit of how process standards are incorporated and connected throughout the unit.

- The TEKS MPS are incorporated throughout the unit as shown in the "Scope and Sequence" section of the *Grade 3 Course Guide*. Each module has TEKS MPS incorporated. Lastly, there is a list of TEKS MPS in every module overview to show that TEKS MPS are incorporated into every module, as highlighted in Module 1. The *K-5 Math Program and Implementation Guide* describes the integration and connection of TEKS MPS throughout the course. The TEKS MPS are connected throughout the unit. There is a note in the Module 1, Lesson 1, Problem Set paragraph that states that 3.1C is used in the RDW approach, which is used all throughout the module and across modules and courses. There is also a call out to TEKS MPS 3.1F in Module 6, Topic B Overview, to show how the work in the module highlights this TEKS MPS.
- Each module includes a list of TEKS MPS and a description of how process standards are incorporated and connected throughout the module. The Module Overviews and "Topic Overviews" include and reference the content TEKS within the descriptions for each module and topic. Each module includes a list of TEKS MPS and a description of how process standards are incorporated and connected throughout the module. For example, the Module 1 Overview includes information about how the students will engage with the process standards through a descriptive statement followed by a specific process standard in parenthesis. One of the statements shows the connection, stating, "Students use multiplication and division to solve problems arising in everyday life about making equal groups and sharing a total number of objects equally **(3.1A)**.".

Materials include an overview of the process standards incorporated into each lesson.

- The TEKS MPS section of the *K-5 Math Program and Implementation Guide* provides teachers with guidance on how to integrate TEKS MPS into the structure of each lesson throughout the course.
- The *Grade 3 Course Guide* features a table titled "Grade 3 TEKS Mathematical Process Standards by Lesson per Module," listing TEKS MPS addressed in each lesson of the course. For instance, TEKS MPS 3.1A is covered in Module 1, Lessons 11, 12, and 18.
- The *Grade 3 Course Guide* includes a Fluency Close-Up that categorizes TEKS MPS by concept. For example, under Number and Operations, it specifies, "The student applies TEKS mathematical TEKS Mathematical Process Standards to represent and compare whole numbers and understand relationships related to place value." The chart is organized by TEKS, module, and lesson.

Productive Struggle

6.1	Student Self-Efficacy	15/15
6.1a	Materials provide opportunities for students to think mathematically, persevere through solving problems, and to make sense of mathematics.	**3/3**
6.1b	Materials support students in understanding, explaining, and justifying that there can be multiple ways to solve problems and complete tasks.	**6/6**
6.1c	Materials are designed to require students to make sense of mathematics through doing, writing about, and discussing math with peers and teachers.	**6/6**

The materials provide opportunities for students to think mathematically, persevere through solving problems, and to make sense of mathematics. Materials support students in understanding, explaining, and justifying that there can be multiple ways to solve problems and complete tasks. Materials are designed to require students to make sense of mathematics through doing, writing about, and discussing math with peers and teachers.

Evidence includes, but is not limited to:

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

- Materials provide opportunities for students to make sense of mathematics through the "Read-Draw-Write" (RDW) process. The *OER K-5 Math Program and Implementation Guide* states, "Students in Grades 1–5 use the Read-Draw–Write (RDW) process to make sense of problems, choose and apply mathematics, and solve." For example, in Module 1, Lesson 1, students learn the RDW process by reading the problem, drawing and labeling a model, writing an equation, and composing a word sentence. As a daily lesson component, the "Application Problem" provides an opportunity for students to persevere through problem-solving. The *OER K-5 Math Program and Implementation Guide* states, "Students apply conceptual understanding to make sense of and persevere through new problems."
- Materials provide opportunities for students to think mathematically. The *OER K-5 Math Program and Implementation Guide* states, "A Student Debrief ends each lesson, holding space for students to reflect on and process their learning." This component provides guided discussion questions that "develop student metacognition by helping them to make connections among parts of the lesson, concepts, strategies, and tools on their own." For example, Module 4, Lesson 6, "Student Debrief," prompts students to think mathematically with the question, "Talk to a partner: In Problem 1(a), how does knowing the side lengths of the grid help you find the side lengths of the small rectangles without counting?"

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 are multiple ways to solve problems and complete tasks. For example, Module 3, Lesson 8, "Concept Development," focuses on counting by units of six, using number bonds, skip counting, and related facts. Module 7, Lesson 18, provides opportunities for students to solve problems related to perimeter and area. Teacher guidance states, "This problem presents a new complexity because it is the first time students find an unknown side length given the perimeter and one side length. This is a two-step word problem, which can be approached in a variety of ways." The guidance provides further information about the multiple approaches students can take to solve the problem.
- The materials support students in explaining and justifying that there can be multiple ways to solve problems and complete tasks. For example, Module 6, Lesson 8, Student Debrief, suggests the following discussion questions for students: "Could you display the data in Problem 1 in a vertical strip diagram with units of 6? Why or why not?" Module 5, Lesson 5, Student Debrief, includes the question, "For Problem 1 if you were to cut out your equal shares in the left-hand column and rearrange them, would they fit on top of the equal shares in the right-hand column? Why?" Module 5, Lesson 16, Student Debrief, includes the question, "Why is the fraction strip an important tool to use when labeling fractions on a number line?"

Materials are designed to require students to make sense of mathematics through doing, writing about, and discussing math with peers and teachers.

- The course materials are designed to require students to make sense of mathematics through doing math with peers and teachers. For example, in Module 5, Lesson 4, students collaborate with the teacher to fold paper, modeling fractional parts of thirds. Following this, students work in groups of three to represent fractional units using various objects, partitioning each item and displaying their results. Each group then participates in a "museum walk," touring other groups' displays to observe and discuss different representations of fractional units.
- The materials require students to make sense of math through writing about mathematical concepts with peers and teachers. In Module 6, Lesson 3, the teacher prompts students to answer questions such as, "What are some jobs you know about? What jobs do you think you might want to do one day? Why?" Students discuss these questions with peers and write their thoughts on their "Problem Set." The teacher also asks students why people choose certain jobs, and collectively, they write out their reasonings.
- The materials are designed to require students to make sense of mathematics through discussing math with peers and teachers. For example, Module 2, Lesson 6, Student Debrief, includes teacher guidance stating, "Invite students to review their solutions for the problem set. They should check their work by comparing answers with a partner. Look for misconceptions or misunderstandings that can be addressed in the Debrief. Guide students in a conversation to debrief the Problem Set and process the lesson." Module 6, Lesson 3, Student Debrief, questions prompt students to discuss with a peer, "What are some reasons

why people choose a particular kind of labor? What kinds of things did we talk about today that affect how much money someone can earn at a job?"

Productive Struggle

6.2	Facilitating Productive Struggle	10/10
6.2a	Materials support teachers in guiding students to share and reflect on their problem-solving approaches, including explanations, arguments, and justifications.	**6/6**
6.2b	Materials offer prompts and guidance to assist teachers in providing explanatory feedback based on student responses and anticipated misconceptions.	**4/4**

The materials support teachers in guiding students to share and reflect on their problem-solving approaches, including explanations, arguments, and justifications. Materials offer prompts and guidance to assist teachers in providing explanatory feedback based on student responses and anticipated misconceptions.

Evidence includes, but is not limited to:

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

- Materials support teachers in guiding students to share and reflect on their problem-solving approaches, including explanations. For example, in Module 1, Lesson 12, the materials direct students to model division where the unknown represents the number of objects in each group. The materials include teacher prompts for students to share their thinking with a partner and guide students' reflection. The reflective dialogue in the vignette states, "The two division sentences for these diagrams are the same, but the strip diagrams are different. Turn and talk to your partner about why." Another example is in Module 5, Lesson 12, "Student Debrief," where the prompt for students asks, "How did Problem 3 help you answer Problem 5? Compare problems 3 and 5. How are they the same? Different?"
- Materials support teachers in guiding students to share and reflect on their problem-solving approaches, including arguments and justifications. For example, the Module 4, Lesson 6, "Concept Development" vignette provides the teacher prompts to ask students, "What is the area of the other rectangle? How do you know?" Another example is in Module 6, Lesson 4, "Homework," which prompts students to reflect on Problem 3 over supply and demand. The materials include an opportunity for students to justify their thinking on whether the price of snow boots will change after the snow season.

Materials offer prompts and guidance to assist teachers in providing explanatory feedback based on student responses and anticipated misconceptions.

- Materials include guidance and prompts to assist teachers in providing explanatory feedback based on student responses. In Module 2, Lesson 24, Concept Development, the lesson is scripted with prompts from the teacher identified by a T and examples of student responses or actions identified by an S. After asking students questions, a teacher's response is provided in the form of feedback for the student's response or action. For example, Module 3, Lesson 4,

Concept Development, explores the relationship between place values. In reply to the teacher's question, "Can someone describe the pattern that we are starting to see?" materials provide the expected student response of, "Every place value unit is 10 times as much as the place value unit to its right." Materials provide teacher-prompted feedback based on this response, such as, "Excellent! Use the sentence stem [_____ is _____ times as much as _____.] to describe the relationship between 100 and 10,000."

- The *OER K-5 Math Program and Implementation Guide* includes prompts for teachers to provide explanatory feedback based on student responses. The "Language and Communication" section states, "Therefore, one of the most significant things a teacher can do to create a culture of learning is to have routines to celebrate and reinforce the importance of mining mistakes for good mathematical thinking and reframing them into learning moments." Following an explanation of redefining mistakes as learning moments, a description of collaborative troubleshooting describes three steps: discuss surface thinking, validate what they got right, and create a bridge to a better understanding. A table provides general prompts for responding to student responses. For grade-level exemplar prompts, the *OER K-5 Math Program and Implementation Guide* suggests using the *Course Guide* specific to the course of instruction.
- Materials include guidance to assist teachers in providing explanatory feedback on anticipated misconceptions. For example, the "Collaboratively Troubleshooting Student Misconceptions" section in the "Module Overview" provides teacher guidance to support possible misconceptions. A chart associates the misconception with TEKS, their location, and the Topic. For example, in the Module 3 Overview, if a student has a misconception where they do not recognize the commutativity between two multiplication equations because the equations look different, teacher guidance is provided for feedback to the student. Materials state the teacher should "Review the commutative property by using concrete and pictorial representations. For example, represent 2 threes by showing 6 students standing in both 2 rows of 3 and 3 rows of 2."
- The materials include prompts to assist teachers in providing explanatory feedback based on anticipated misconceptions. For example, the "Collaboratively Troubleshooting Student Misconceptions" table from Module 1 provides prompts for teachers' and students' responses in the vignette provided in the "How to Bridge to a Better Understanding" column. Also, the *Course Guide*, Collaboratively Troubleshooting Student Misconceptions example, provides a teacher-student dialogue based on a misconception for Module 5, Topic F, that teachers can use and adapt for other misconceptions. In addition, Module 1, Lesson 1, Student Debrief, provides questions (prompts) that teachers can use to lead the discussion and address misconceptions.