IMRA Review Cycle 2024 Report

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

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 1

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	1
6. Promoting Sexual Risk Avoidance	0
7. Compliance with the Children's Internet Protection Act (CIPA)	0

Flags for Suitability Compliance 4

Indicator	Count of Flags
Alignment with Public Education's Constitutional Goal, 2.1.1	4
Promoting Sexual Risk Avoidance, 6.2	0

Alleged Factual Errors 1

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 1

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, suggested pacing guides for various instructional calendars, provide explanations for the rationale of unit order and concept connections, offer guidance for unit and lesson internalization, or 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 provides 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 K–5 program aligned to the Texas Essential Knowledge and Skills (TEKS) and English Language Proficiency Standards (ELPS). The instructional materials offer a structured approach to Kindergarten math instruction, incorporating a detailed scope and sequence that outlines the concepts and knowledge to be taught across various modules. Each module 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 module 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 includes instructional materials with interviews and observational tasks that progress toward standard proficiency. Rubrics and exemplar student responses support teachers in scoring and responding to student performance. The lessons include a variety of instructional

strategies including strategies to support emergent bilingual students. Separate small group lessons for intervention or extension are not included in the materials.

- The program includes materials that allow students to work through the vertically aligned problem-solving model and to think critically about mathematics. Routines within the program support the teacher with engaging students in the demands of the mathematical standards and include intentional daily opportunities for discourse, high-level thinking, and flexible thinking. Tasks in the materials build in complexity using the concrete, representational, abstract approach to learning mathematics, going deep on the most important topics at 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 *Course Guide* includes a "Scope and Sequence" in table form that includes a column for Module, Topics and Instructional Days, Knowledge and Skills, and Standards. Listed under the "Topics and Instructional Days" for each module is a list of the topics covered within the module, where within the topics the "Mid-Module Assessment Task" should be given, and when the "End-of-Module Assessment Task" should be given. Also listed in this column are the number of days for assessments, lesson days, assessment days, and the total number of instructional days. Listed in the "Knowledge and Skills" column are the focus knowledge and skills for the module, including what students will do. The standards column lists the TEKS and ELPS. The focus standards [TEKS] are in boldface.
- The *Course Guide* includes a "Year-at-A-Glance" document listing each module, the total number of instructional days, and the TEKS to be taught in the unit. The focus standards [TEKS] are in boldface.

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 *Course Guide* includes a "Kindergarten Year-At-A-Glance" document for 165 days of instruction. The Year-at-a-Glance document is in table format and includes a column for each of the six modules in the course, the module title, the number of instructional days, and the TEKS.
- The materials include a "Kindergarten Additional Days School Year" (ADSY) resource. This resource provides lessons to supplement "core instructional materials." The lessons can extend the course by up to 30 instructional days. In addition, "Each ADSY lesson reviews a specific TEKS" and "can be used to respond to data after an assessment." The ADSY allows flexibility in scheduling these days throughout the school year, including an option to extend the school year. The materials included in the ADSY module support 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* includes a "Sequence of Kindergarten Modules" aligned with the TEKS section that 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 example, in "Module 1," students classify, make groups, and count. In "Module 2," students practice fluency, counting, and manipulating numbers to prepare for addition and subtraction, which is introduced in "Module 4."
- 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 2 describes the connection to Module 1. The overview closes with a description of how Module 2 connects to "Module 6," stating, "This module will allow them to bring together all they have learned throughout the year as they manipulate shapes and their components."

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

- The materials include *a OER K-5 Math Program and Implementation Guide*, which includes a section that explains the module structure and lesson structure of each module. The lesson structure overview provides a "Teacher Lesson Internalization Protocol," which includes a step-by-step process for understanding each lesson before teaching. In addition, materials provide explanations of fluency practice, application problems, concept development, problem sets, student debriefs, and exit tickets.
- The OER *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.

- The materials include resources and guidance for administrators and coaches. In the OER *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 coaches and administrators 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.
- In the OER *K-5 Program and Implementation Guide*, the "Observation Protocol" is a resource provided for coaches and administrators to record key observations during classroom instruction. The materials state the "Observational Protocol Tool is a resource for coaches and administrators to document specific look-fors while observing teachers' instruction and implementation of high-quality instructional material (HQMI). It is not designed to be an evaluation tool."
- The OER K-5 Math Program and Implementation Guide includes a "Student Work Analysis Protocol" that includes notes for coaches looking at student work with teachers.

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 *Teacher Edition* features a "Module Overview" at the beginning of each module. The overview explains the concepts covered in each topic and includes common student misconceptions and actions to take when addressing misconceptions.
- The Module Overview includes a "Terminology" section that includes new vocabulary, visual aids, and Spanish cognates when applicable.

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

- The *Course Guide* offers tips for families in bulleted checklist format for each module with "Key Concepts" overviews. Visual aids are also provided to enhance the understanding of these concepts. Both English and Spanish versions are available.
- The *Course Guide* includes suggestions for how families can support their student's learning at home. These suggestions include games to play and questions to ask the student, with resources 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.

- Each lesson begins with a specific learning 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. The lesson overview does not contain language objectives. Some lessons also include additional teacher guidance in the form of margin notes offering support for language and scaffolding activities aligned with the ELPS. For example, the "Notes On Multiple Means of Action and Expression" for Module 2, Topic A, Lesson 2 states, "For students who need more support to talk about their geoboard triangles, including some emergent bilingual students, provide sentence frames." The "Overview of Module Topics and Lesson Objectives" includes a list of ELPS for each topic.

- The materials contain questions, tasks, materials, and instructional assessments aligned to the language standards (ELPS) of the lesson. For example, in Module 3, Lesson 26, the "Application Problem and Notes on Multiple Means of Engagement" margin box aligns with ELPS 2.E and supports students with this task by asking questions to confirm understanding of complex language. Another example is in Module 3, Lesson 1, "Concept Development," which aligns with ELPS 2.C, one of the language standards for the lesson. This section allows students to learn the academic vocabulary heard during classroom instruction and interactions while the teacher is introducing boldface terminology in the vignette, then has students interact with that terminology in the "Problem Set," "Student Debrief," and "Homework."
- The I for modules 1–6 includes a section called "Suggested Lesson Structure" at the beginning of each lesson. This section is organized into four parts: "Fluency," "Application," "Concept Development," and "Student Debrief." The timing for each section and the total time for the lesson are included.
- Instructional assessments are integrated throughout the course materials. Each module includes a "Mid-Module Assessment Task" and "End-of-Module Assessment Task," and "Exit Tickets" are included for lessons in Modules 5 and 6. Detailed teacher guidance for informal instructional assessment opportunities is provided within individual lesson components. Checklists are also provided for students to use as formative assessments.
- Lesson plans include a list of teacher questions and potential student responses for each lesson. For instance, in grade K, Module 3, Topic A, Lesson 1 includes a Concept Development section with the teacher question: "With your partner, look at your drawings of the buildings. Talk about how they are the same and how they are different. What do you notice?" followed by the student response "One is bigger than the other.

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

- The materials include a lesson overview with a recommended schedule outlining the timing for each component. The duration of each task is itemized individually, with a cumulative time total provided. For example, Module 2, Lesson 2 provides a "Suggested Lesson Structure" of Fluency Practice for 12 minutes, Application Problem for five minutes, Concept Development for 25 minutes, and Student Debrief for eight minutes, for a total time of 50 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 2 of Module 2, there are three fluency activities to complete within 12 minutes. Each activity has a suggested time allotment, such as Making 3 with Triangles taking three minutes, Making a Shape taking five minutes, and Groups of 6 taking four minutes.

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

- The "Module Overview" includes a list of recommended materials for the module, categorized as (T) for teacher materials and (S) for student materials. Within the Module Overview is a list of suggested tools and representations that include concrete materials and pictorial models. Teachers utilize these charts to ensure they have all the necessary materials well in advance.
- The *Course Guide* and the "Manipulatives List" include a comprehensive list of student and teacher materials in order to effectively deliver all lessons. Following the Tools and Representations section of each Module Overview, the materials provide a table with a Lesson Overview Materials List. The table lists the teacher materials and student materials by lesson for the Module. In each lesson, the materials needed are included under the task headings. For example, in Module 4, Lesson 20, listed under Fluency Practice, the materials needed for the Making 3 Triangles activity include "(S) Cross 1 Out and Write How Many Sprint (2 copies)." For the Application Problem, the materials needed are "(T) Three-column, labeled graph, as shown, and (S) sticky notes." For Concept Development, the materials needed are "(S) 5 linking cubes, personal whiteboard."

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

- The OER *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 *K-5 Math Program and Implementation Guide* suggests utilizing the lesson's Fluency component for additional practice outside of school hours.
- The OER *K-5 Math Program and Implementation Guide* includes guidance on using the extension problems found in the student Problem Sets for each lesson. Materials state, "Teachers are encouraged to think flexibly and adjust the Problem Set depending on the needs of their students." Additional guidance is provided, along with suggestions for how teachers could flexibly use the materials to meet their students' needs.
- 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, Module 1 of the "*Teacher Edition* Concept Development" section in Lesson 5 includes an MME box that states, "Students who would benefit from an extension of this lesson, including some emergent bilingual students, could play the role of the teacher." Information on how to implement this suggestion is provided in the box.

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. 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 K *Assessment Guide* includes "Mid-Module Assessment Tasks" and "End-of-Module Assessment Tasks." These assessments are designed to assess individual or small group learning and offer valuable insights into student strengths and areas for improvement. They assist in tracking progress toward learning goals and inform future instructional planning.
- The grade K *Assessment Guide* contains checklists intended for use during each lesson as a continuous form of formative assessment. Students engage in a variety of activities (such as drawing pictures, modeling with manipulatives, explaining orally, or justifying their thinking) as part of the formative assessment process. Completion of the tasks gauges understanding of the content.
- The lesson and unit assessments in the materials include formative and summative evaluations. Diagnostic assessments are included throughout the lesson, as outlined in the *OER K-5 Math Program and Implementation Guide*. For example, "Fluency Practice" has three goals, including "Anticipation (skills that ensure students are ready for the in-depth work of upcoming lessons)." Also, "Application Problems" are "used to activate schema or prepare

students for new learning." Lastly, the "Exit Tickets" have two purposes, which are "indispensable for planning purposes" of future lessons. The "ADSY Pre- and Post-Tests by Topic," with uses outlined in the second paragraph of the overview, could also be used as a diagnostic assessment to "adjust instruction as needed." According to the GK Assessment Guide, 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."

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

- The grade K *Assessment Guide* provides the definition and purpose for each type of instructional assessment included in the materials. These are located at the beginning of the assessment guide.
- 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.

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

- The grade K *Assessment Guide* includes teacher guidance on administration, timing, and scoring. For example, "Students earn 2 points if their response demonstrates proficiency, 1 point. If their response is approaching proficiency, or 0 points if their response shows no evidence of proficiency."
- The *OER K-5 Math Program and Implementation Guide* includes teacher guidance on best practices for administering formative and summative assessments to ensure accurate administration of both. For instance, 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 Overview Teacher Edition* provides suggestions on the time allotted for the Mid-Module and End-of-Module Assessments. The "Module Overview" found in each Module *Teacher Edition* provides a chart with 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 can 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 in grade K, which demonstrate alignment with the TEKS and objectives of the course, unit, and lesson.
- The materials include formative assessments in grade K that demonstrate alignment with the lesson objectives and TEKS. According to the *K-5 Math Component Navigation Guide* and *OER K-5 Math Program and Implementation Guide*, formative assessments include Problem Sets, Exit Tickets, Sprints, Observational Checklists, and Mid-Module Assessments, which are all aligned to the TEKS and objectives of the course, unit, or lesson. The aligned TEKS for these lesson components are located in the *Course Guide*, the Module Overviews, and the Assessments Guide.
- The materials in grade K include diagnostic assessments aligned with the TEKS and objectives of the course, unit, or lesson. 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 Guide*, 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 is 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, which can be used for anticipatory purposes.

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

- The materials include Mid-Module Assessments and End-of-Module assessments in grade K, with at least two levels of complexity, such as matching, fill-in-the-blank, and open-ended questions. For example, the "Module 1 Mid-Module Assessment" shows several levels of complexity and is standards-aligned.

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.

- The grade K *Assessment Guide* includes instructions on how to address student performance on assessments. The *Assessment Guide* provides "A Progression Toward Proficiency" to help teachers evaluate student strengths and misconceptions by providing a clear progression toward proficiency and identifying student abilities.
- The grade K *Assessment Guide* includes a "Class Record Sheet" to support teachers in tracking student progress on topics, with the last column designated for the next step.

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 are intended 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 *OER K-5 Math Program and Implementation Guide* in the "Responding to Trends in Student Performance" section provides guidance for advising 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.

- The *Teacher Edition* for grade K lessons includes notes for teachers to support the differentiation of students at different proficiency levels.
- 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 example, in Module 2, a common student misconception is that "Students confuse the name of a three-dimensional shape with its two-dimensional attribute (e.g., a student mistakenly identifies a cube as a square)." One of the recommendations included in the "Bridge to Understanding" is to "Have students hold and touch the shape and notice the different ways they move."

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

- The grade K *Course Guide* includes a chart titled "Assessment Reflection Tool." This tool is designed to help 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."
- In the *OER K-5 Math Program and Implementation Guide*, the "Fluency Practice" section 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, and/or paired (scaffolded) lessons 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 *Teacher Edition* for grade K features a "Module Overview," which includes a table to support educators with common misconceptions and provides examples to support teachers in growing student proficiency. The table also provides sample guided questions to support students in reaching proficiency. For example, in Module 4, the misconception of students focusing on keywords in word problems suggests that the teacher focuses on modeling what is happening.
- In the grade K lessons, materials provide margin notes with ideas to support students who have not yet demonstrated proficiency. The margin notes found in the lessons include support for the different components of the lesson. For example, in Module 4, Lesson 4, there is a margin note that suggests the teacher use different color cubes to provide support for the decomposition of numbers.
- The ADSY module, "Additional Days School Year," has 25 lessons. The overview states that these lessons can be used independently based on student needs. This module is a limited resource to address students who have not reached proficiency in grade-level standards.

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

- There are several opportunities for pre-teaching vocabulary, as outlined in the OER K-5 Math Program and Implementation Guide. Teacher guidance states, "In addition, use the Terminology resource to generate supports for students. Show students the visuals from the teacher-facing Module Overview that correspond to the terminology and encourage them to naturally use the terminology as they respond in class to discussion questions or in Turn and Talks." Guidance for teachers also suggests using the list to follow the conceptual understanding of the mathematics with just-in-time supports to help internalize words.
- The Teacher Edition for grade K features a "Module Overview," which includes a list of terminology with a definition and picture. When the words are found in the material, they are bolded. Margin notes in the lessons include ideas for turn-and-talk to practice words. Spanish cognates are included where applicable.
- Embedded support for academic vocabulary is in the margin notes of the lessons. For example, in Module 3, Lesson 2, the margin note suggests using visuals of the terms taller than and shorter than for emergent bilingual students to help them engage with the lesson's key concepts. In Module 1, Lesson 18, Multiple Means of Representation margin notes, there is an opportunity to pre-teach three terms (row, column, and corner).

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

- The materials include teacher guidance in margin notes that include extension ideas for students who have demonstrated proficiency. During the application problem, there may be an extension of additional practice for students at proficiency. For example, in Module 5, Lesson 1, the margin note suggests an extension of the "Application Problem" by changing the numbers and asking additional questions.
- The materials include teacher guidance for differentiated instruction for those who have demonstrated proficiency. For example, Module 1, Lesson 25, second Notes on Multiple Means of Representation margin note includes teacher guidance stating, "Teach students, especially those who have demonstrated proficiency to ask higher-order questions. Practice sentence starters such as, 'I know because…' with them so they carry out higher-level conversations with each other in response to queries."
- The *OER K-5 Math Program and Implementation Guide* states that the four-part lesson design has the goal of supporting the expectations outlined in the ELPS by including the embedded instructional best practices paired with linguistic accommodations for building vocabulary, comprehension, and knowledge.

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).

- The *Teacher Edition* includes prompts and guidance to support the teacher in modeling the concept to be learned. For example, in Module 1, Lesson 21, the teacher models the process of counting objects. The materials include guidance for teachers on how to model the concept and include notes to support navigation through the lesson.
- The *Teacher Edition* includes vignettes in the "Concept Development" section of each lesson, as a guide for teachers to explain the concepts. In addition, the lessons include notes and questions to support teachers in explaining the activities explicitly. For example, in Module 3, Lesson 2, the vignette guides the teacher in explaining the concept of length and height and questioning the students on finding things shorter than a string.
- The *Teacher Edition* provides clear guidance for teachers to communicate prompts to guide students through each lesson effectively. Additionally, the materials provide support through notes and questions to guide teachers in effectively communicating concepts within the lessons.

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

- The *Teacher Edition* includes teacher guidance for lesson delivery, with each lesson following a consistent section. Each lesson includes a variety of delivery strategies, including fluency

and questioning, to check for understanding. The lessons also include questioning techniques to encourage higher-level thinking and pedagogy practices such as turn-and-talk. In the "Student Debrief" section of each lesson, the teacher is given guidance to facilitate conversation and reflect on the lesson.

- The module lessons offer a "Fluency Practice" section for educators to lead number sense routines. The materials include several instructional approaches, including small-group instruction. For example, Module 1, Lesson 34, Multiple Means of Action and Expression margin notes suggest students can play the game in a small group for more support.

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.

- The instructional materials include a variety of practice activities. Each lesson includes a Fluency Practice led by the teacher, as well as a "Problem Set" completed either collaboratively during "Concept Development" or independently afterward. The lessons include guidance for teachers on how to effectively incorporate Fluency Practice and Problem Sets. Detailed instructions within the materials outline opportunities for both whole group and partner work during Fluency Practice. Students are encouraged to collaborate during "Application Problems" and Concept Development, with a focus on whole-group guided practice during Concept Development and independent practice during Problem Sets.
- The *OER K-5 Math Program and Implementation Guide* includes guidance for teachers and recommended structures to support effective implementation. For example, the guidance states, "Responsive instruction includes flexible groups that change frequently based on students' needs." Options for groupings include addressing misconceptions, applying scaffolds and extensions recommended in margin notes, pairing for mathematical or English language proficiency, and grouping students who are above proficiency levels.

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 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 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 materials provide teacher guidance on providing linguistic accommodations for ELPS, which are designed to engage students in using increasingly academic language. Teacher guidance for supporting emergent bilingual students is provided in lesson margin notes throughout the lessons. In addition, sentence stems can be found to support language proficiency.
- 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 include guidance on supporting students who have different levels of English language proficiency: the "Structuring Student Groupings" section and the "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* states that the four-part lesson design supports the expectations outlined in the ELPS by including embedded instructional best practices paired with linguistic accommodations for building vocabulary, comprehension, and knowledge. Built-in supports for implementation provide what emergent bilingual students need to engage with the language-rich lessons. The four-part lesson design infuses the following: mathematics as a coherent story, assessment practices to identify misconceptions and provide timely feedback, and multiple entry points to the mathematics.
- Also, the *OER K-5 Math Program and Implementation Guide,* "*Differentiation and Scaffolds*" section highlights scaffolds that can be done with students in whole-group, individual, or small-group settings. The materials state, "Pair students who have different levels of mathematical proficiency and students who have different levels of English language proficiency." Guidance suggests groups be flexible and change frequently based on students' needs.
- The *OER K-5 Math Program and Implementation Guide*, "*Support for Emergent Bilingual Students"* section includes "Elements of Sheltered Instruction." Linguistic accommodations for building vocabulary include pairing written terms with a representation, visual cue, or gesture. The materials include guidance in the lesson body and in margin notes to support the implementation of linguistic accommodations, building comprehension and knowledge.
- The *OER K-5 Math Program and Implementation Guide* has several sections that support teachers in using the materials with emergent bilingual students. For example, the "Support for All Learners" section unpacks the different margin notes that the materials offer. The margin notes include suggestions based on three learning principles: multiple means of representation, multiple means of action and expression, and multiple means of engagement.

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 materials include teacher guidance found in lesson margin notes to support emergent bilinguals in developing academic vocabulary through oral discourse and comprehension through oral questioning. The margin notes provide support for both students and teachers, including opportunities for oral discourse activities with peers using real objects and pictures.
- The materials provide opportunities for building background knowledge and making cross-linguistic connections through oral discourse. An example of building background knowledge and an example of a cross-linguistic connection through oral discourse is in Module 1, Lesson

13, in the Notes on Multiple Means of Action and Expression margin notes, where students use a cognate for the word zero to build background knowledge and also make the cross-linguistic connection.

- The materials include continuous opportunities for all students to write their numbers, which includes plugging them into sentence stems. For example, in Module 5, Lesson 1, the exit ticket prompt states, "How many times did you count 10 things?" In the *OER K-5 Math Program and Implementation Guide*, there is a section titled "Lesson Structure," and within that, "Discourse and Elaboration," which supports oral and written discourse. Another example of a writing opportunity that is developmentally appropriate for kindergarten is in Module 6, Lesson 3, where students are asked to write labels for their groups in the exit ticket.

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

- Though the materials are not designed for DLI programs, they include resources to address 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.
- The material provides margin notes that support emergent bilingual students but do not mention specific programs.

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.

- There are several examples of how the materials provide practice opportunities at the lesson and unit level that require students to demonstrate depth of understanding aligned to the TEKS. The first example is the overview in the *OER K-5 Math Program and Implementation Guide*: "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." Also, in the "K-5 Math Kindergarten Assessment Metadata," for each question, there is a "Knowledge & Skills" callout for the depth of knowledge and understanding that is related to the question.
- The materials provide practice that fully aligns with the depth of understanding required by TEKS at the lesson level. For example, TEKS K.8A, which is covered in Modules 1, 2, and 3, states that students should be able to collect, sort, and organize data into two or three categories. Students are required to demonstrate the full depth of K.8A in Module 1, Mid-Module Assessment, in the assessment metadata, observational assessments, and interview-style assessments. It is also covered in the observational assessments of Modules 2 and 3.
- In Module 5, the materials include counting numbers up to number 100 by tens and ones. Lesson 17 includes practice counting by tens utilizing Rekenreks and ten frames. The supporting information about standard K.5A emphasizes the importance of starting with a multiple of ten when counting by tens. It is recommended in the Lesson 17 margin notes that students begin counting by tens starting with 12 as an extension to learning.
- Standard K.6F requires students to create two-dimensional shapes using a variety of materials and methods. In Module 6, Lessons 1 and 2, students use coffee stirrers and clay for shape construction. The practice activities following these lessons include completing shapes by drawing a final line or free-handing different shapes. Students are required to demonstrate the

full depth of understanding aligned to TEKS K.6F with the evidence already listed and also in Module 2, End-of-Module Assessment, including the metadata assessment, the interview style, and the observational assessment. This TEKS is also covered in Module 6, End-of-Module Assessment, within the observational assessment and the interview style assessment.

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

- In the "Student Debrief" portion of the lesson, the level of questioning by the teacher increases in rigor and complexity as the academic year progresses. For example, in Module 2, Lesson 4, the questions are more straightforward, while in Module 3, Lesson 27, teachers prompt students to make connections to the real world and within the lesson. The student debrief section assesses comprehension and reinforces learning. The questions for students increase in complexity over time. For example, in Module 5, Lesson 20, teachers ask students to determine one more than a number. The final question in the student debrief is open-ended, and teachers ask students to analyze what they learned in the lesson.
- Problem sets increase in complexity as students advance through each module. For example, in Module 1, Lesson 13, students identify the correct number of objects up to three, with the complexity increasing to drawing pictures of objects up to 10 in Lesson 28. By Lesson 32, the same steps require students to find missing numerals, increasing the task's complexity. Problem sets also develop in complexity across different topics. In Module 5, Lesson 21, students create a number sentence that aligns with a number bond, progressing to multiple number sentences in Lesson 22. In Lesson 11 of the same module, students determine one more than a given number, and by Lesson 16, they must explain strategies for comparing sets of objects. Throughout the year, the tasks students complete generally remain consistent and involve tasks with larger numbers.

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 "Grade K Scope and Sequence" includes a cohesive structure for introducing and expanding upon mathematical concepts at varying levels of complexity. For example, Module 1 emphasizes numbers up to 10, while Module 5 addresses numbers 10–20. This progression of quantities is a logical development of concepts within the modules.
- The *Course Guide* for grade K includes a table outlining the progression of mathematical concepts. This table includes the progression of math concepts from one grade level to the next.

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

- The materials demonstrate coherence by establishing connections between patterns in various modules. For example, in Module 5, students build upon their understanding of numerical patterns by counting up to 100, expanding from counting to 30. The materials

demonstrate coherence across different topics and objectives by linking patterns between mathematical concepts. For example, in Module 2, identifying two-dimensional shapes based on their attributes is beneficial for future classification purposes.

- The materials include big ideas for topics in the modules. For example, the "Topic Overview" includes the objectives found in the topic and describes the connections across lessons. Key ideas are given for each lesson within the module, and a unit overview defines the fundamental concepts, tools, and representations utilized throughout the unit.
- The materials demonstrate coherence between modules by connecting relationships between mathematical concepts. For example, Module 3 connects shape attributes from Module 2 to new concepts about measurable attributes such as length, capacity, and weight.

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 Module Overviews in grade K provide the foundational standards introduced in pre-K and how they are built upon in kindergarten. For example, pre-K students learn to recognize shapes while also describing two-dimensional shapes. The language used in grade K is aligned with that of the pre-K materials. For example, in pre-K, students learn to identify and describe common two-dimensional shapes. In grade K, Module 2, this knowledge is expanded to describing shapes based on the number of sides they have. Another example is in pre-K, where students learn to count objects up to ten. This builds to composing and decomposing numbers to 10 in grade K. In Module 6, Lessons 23 and 24 include understanding the concept of coins introduced in Module 4 and how they relate to place value, comparison, addition, and subtraction up to 40. Module 1, Topic G makes connections to grade 1, Module 1 to demonstrate how the concepts being taught will align with future lessons in the next grade level. The lessons also provide additional support for language and vocabulary, including representations to assist students in their learning.
- The materials show coherence by connecting pre-K concepts to the use of pictorial models and verbal word problems to represent the addition of up to five objects. By kindergarten, students are expected to use objects and drawings to solve word problems involving sums up to 10 and differences within 10. The Module Overview for Module 4 informs the teacher that topics A, B, and F align with grade 1, Module 2, and will prepare students for future lessons in the next grade level. Additionally, Module 2 focuses on two-dimensional and three-dimensional shapes, laying the groundwork for grade 1, Module 5, which involves identifying, composing, and partitioning shapes.

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 skills in grade K's sequence of modules progress in a systematic way. Lessons in Module 1 focus on counting with smaller numbers, with subsequent modules building upon this foundation by introducing larger numbers and making connections to previous concepts. Throughout the course guide, there is an emphasis on connecting new learning to previously acquired skills. For example, in Module 5, students expand their knowledge of numbers up to 10 to include numbers up to 20. Lessons also provide coherence by using concrete tools, such as cubes, to aid in understanding concepts like length and comparison.
- The *OER K-5 Math Program and Implementation Guide* describes the Fluency component as having three different purposes: maintenance to stay proficient, preparation for the current lesson, and anticipation for upcoming lessons. The materials in the course show coherence by reviewing prior knowledge in different topics. For example, students first practice counting objects up to 20 in one topic and then use that cardinality knowledge to recall basic addition and subtraction facts in another topic. Lastly, the lessons from Modules 2 through 6 build an understanding of shapes by introducing two-dimensional shapes and helping students to classify and sort various two- and three-dimensional figures.

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.

- Each lesson in grade K includes fluency activities that offer opportunities for practicing previously learned skills and concepts. The activities progress upon each other throughout each unit and across units. Application problems within the lessons across the modules allow for the retrieval of previously learned concepts from prior lessons. The materials only include practice and assessments for the current concept without offering spaced retrieval opportunities.
- The materials provide spaced retrieval opportunities with previously learned skills across modules. For example, in grade K, Module 1 introduces the fundamental skill of counting to 10, which serves as a basis for future modules where students will advance to counting beyond 10 in Module 2 through Module 6. Students revisit and further develop these skills in Module 4 through addition and subtraction within 10. In Module 5, students have the opportunity to reinforce their understanding of counting beyond 10, specifically focusing on numbers 10 to 20. Grade K, Module 2 covers the identification and classification of triangles and two-dimensional shapes. Lesson 2 emphasizes distinguishing examples and non-examples of triangles, while Lesson 8 revisits this skill and extends it to sorting various shapes. Lessons 1–4 in Module 2 focus on the identification and classification of two-dimensional shapes, with Lesson 8 providing an opportunity for students to apply their knowledge in sorting and classifying these shapes.

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

- The materials provide interleaved practice with concepts across lessons and units. Previously learned concepts appear in some problem sets throughout the module to review learning. For example, in Module 3, Lesson 19, students apply the concepts of more and less to the

measurement of length to reinforce concepts from prior learning. The "Observational Assessments," "Mid-Module Assessments," and "End-of-Module Assessments" assess multiple SEs across multiple lessons, providing interleaved practice within each assessment. In addition, a student has interleaved practice opportunities across units with counting, as noted in the Module 1 Assessment and then in the Module 4 Mid-Module Assessment, where students are asked to count. They are also instructed to count in the Module 5 End-of-Module Assessment.

- Problem sets provide opportunities to practice specific skills from the current lesson. For example, in Module 5, Topic D, students focus on counting by ones and tens. In the lesson using ten frames, the problem set exclusively features exercises involving ten frames. Conversely, when using a Rekenrek tool, students use paper Rekenreks for practice. Module 5 includes lessons with a focus on grouping numbers in sets of 10 and interleaved practice of counting backward to enhance counting. In Module 4, each daily fluency activity offers opportunities to review and build proficiency in the sums and differences with a total through five. The modules use interleaved practice to revisit concepts at increasing levels of complexity.

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.

- During the "Concept Development" portion of the class, students engage in discussions, interpreting various mathematical models. In Module 4, Lesson 30, the materials provide prompts for students to analyze two different number sentence representations related to mathematical problems and explore numbers' composition and decomposition through hands-on activities using Rekenreks and linking cubes. In Module 4, Lessons 13 and 14, materials suggest tools for students to use, such as Rekenreks, linking cubes, and drawings, to understand the concept of composing and decomposing numbers. Module 1, Lesson 17 includes models such as 5 frames, circle drawings, and X's to illustrate addition sentences and counting skills. Prompts suggest the use of Rekenreks in the lesson to represent and count numbers up to 20 for the problem-set tasks.
- The fluency practice activity, "Read a Graph," includes prompts to interpret data. In Module 3, Lesson 13, the materials include prompts for students to evaluate a graph showing favorite specials. The tasks in the problem set utilize different models to explain concepts. Module 4, Lesson 14, includes opportunities for students to identify missing amounts, complete number bonds, and write number sentences based on story problems. The "Student Debrief" in this lesson includes prompts to analyze various pictorial representations such as smiley faces, shapes, dogs, and birds while making connections to number bonds. In Module 5, Lesson 18, 5-frames, 10-frames, and tangible objects to aid counting from 29 to 30.

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

- Concept Development includes prompts to create visual representations to illustrate various situations. For example, Module 3, Lesson 24, includes a task to create a picture graph representing a journey home from school. Module 1, Lesson 8, "Application Problem" includes a prompt to study the problem and justify answers. In Module 5, Lesson 22, the teacher guidance includes prompts to create visual aids such as pictures, number bonds, and number sentences.
- Each lesson includes prompts to create visual representations as part of the problem-solving activities. In Module 4, Lesson 33, the materials include directions to illustrate a mathematical scenario and write the corresponding number equation. Module 4, Lesson 13 includes a task to apply knowledge by creating diagrams and composing number sentences to tell a story. The Module 4, Lesson 27 student debrief and problem set provide tasks to demonstrate the ability to break down numbers into smaller parts and rearrange them in different combinations. Following this, materials include a prompt to compose a story that involves the use of the number 10 and a number bond.

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

- The materials include questions that provide opportunities to apply conceptual understanding to new problem situations and contexts. For example, the Concept Development section provides guidance to teachers to prompt students to use their understanding of concepts in unfamiliar contexts. In Module 3, Lesson 17, the materials prompt students to apply their knowledge of comparing quantities to a scenario involving red and blue cubes. In Module 4, Lesson 40, materials provide teacher guidance to prompt students to use their understanding of part-part-whole relationships to solve a problem with an unknown part. In Module 2, Lesson 7, the independent practice includes solving different problem scenarios.
- In Module 5, Lesson 16, students assess their learning and apply it to new scenarios through reflection tasks in the instructional materials. Tasks ask students to identify similarities and differences between problems to transfer their knowledge to different contexts. In Module 2, Lesson 7, independent practice opportunities provide students with new scenarios for problem-solving requiring the application of their learning. The Student Debrief section in Module 3, Lesson 7 provides guidance for teachers to prompt students' application of their conceptual understanding. For instance, questions like, "How can recognizing hidden partners in the number 5 help you understand the concept better?" Module 1, Lesson 17 prompts students to demonstrate their understanding of adding one more number and representing numbers using pictorial models. In Module 5, Lesson 16, materials direct students to create illustrations to demonstrate more or less quantities than a given amount in the problem set. In Module 6, Lesson 4, student tasks include creating a shape house by combining different 2-D shapes, including circles, triangles, rectangles, and squares.

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.

- Fluency activities are designed to develop automaticity and proficiency in math skills to complete grade-level tasks. Activities such as making 10 and composing/decomposing numbers develop automaticity in lessons. In Module 4, Lesson 28, grouping numbers of 10 builds to fluency in composing and decomposing numbers. In Module 3, Lesson 24, tasks include the practice of number recognition and counting skills, building upon previously learned concepts. In Module 3, Lesson 13, materials provide a range of activities to help students develop math skills proficiently. These activities offer interactive and engaging opportunities for practicing number recognition and counting.
- Each module's lesson provides "Fluency Practice" prior to concept development. In Module 1, Lesson 28, the Fluency practice includes working with Rekenreks to count objects up to 10 and anticipates the upcoming learning in "Concept Development." The materials include fluency templates for teachers to guide students in identifying hidden numbers in different pictures.

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

- The materials include "Application Problems" which provide students with opportunities to practice the application of mathematical procedures. For instance, Module 4, Lesson 6, includes a game for students to compose and decompose numbers up to five. Module 5, Lesson 9, Concept Development, provides teacher guidance to support students' use of a double ten frame as a tool to focus on tens and ones when representing, writing, and saying teen numbers. Module, Lesson 28, includes a "Student Debrief" of the "Problem Set" for students to apply their learning efficiently and effectively as teachers ask questions to facilitate reflection on mathematical thinking. Module 5, Lesson 12, "Exit Ticket," mimics the Problem Set and provides an additional opportunity for students to demonstrate an understanding of the lesson's mathematical procedures. Another example of efficiency is when teachers are instructed to invite students to share more efficient strategies in their fluency activities, which is shown in Module 4, Lesson 21, "Take Away 1."
- The grade K materials provide opportunities for students to have flexibility when applying mathematical procedures. This flexibility is within each lesson's Application Problem. In Module 3, several application problems are open for students to use any problem-solving strategy, which in turn allows them to be flexible. They then compare their strategy to a partner's work, which allows them to see the flexibility in their partner potentially using a different problem-solving strategy. For example, in Lesson 4, they are instructed to turn and talk with their partners. "Did she do it the same way? How many different ways can you find to share the bananas?" Then, in Lesson 5, students solve the application problem and are instructed again to talk to a partner to see different strategies. Then, the teacher note states, "In this problem, students work with and discuss different decompositions of 5 in preparation for today's lesson."

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

- In each lesson, the Student Debrief prompts the teacher with questions to ask students to evaluate the accuracy and efficiency of their problem-solving processes and solutions related to the problem sets. For instance, in Module 4, Lesson 29, a question asks students to explain why grouping in fives is beneficial. In Module 3, Lesson 10, students answer questions about the use of procedures to measure objects. Module 1, Lesson 23, Student Debrief, includes teacher guidance to prompt students to talk to their partners about how they connected their shapes. The materials state, "Did you each draw the line that connected your shapes the same way or a different way?". Module 3, Lesson 13, Student Debrief, guides students to evaluate the accuracy and efficiency of their solutions and processes related to Problem Sets by asking students to determine which container has a greater or lesser capacity by comparing the capacities of pairs of objects.
- During the Application Problem, students discuss and compare their solutions with their peers. For example, in Module 4, Lesson 36, students examine another student's approach to solving the problem and then find a new way to solve it themselves. Module 3, Lesson 9, includes sentence stems to help students discuss weighing objects with a partner.

- During Concept Development, educators ask questions about students' work to support their evaluation of their processes. Module 5, Lesson 9, Concept Development, prompts the educator to ask students to discuss and compare their drawings and dot grouping with a partner when decomposing numbers. In Module 1, Lesson 17, teachers prompt students to demonstrate flexibility by exploring a different way to decompose the same number.

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

- In Module 5, Lesson 9, the teacher guides students to organize information on ten frames to efficiently represent numbers beyond 10. The materials support the teacher in guiding students towards this approach. Module 4, Lesson 4, prompts students to make connections by connecting linking cubes to abstract problem-solving methods. The materials provide repeated practice as students deal with larger numbers and improve their efficiency with the approach.
- In Module 1, the materials provide guidance to educators on the structure and coherence of topics to help students achieve proficiency and learn efficient counting strategies. The "Module Overview" includes TEKS and pictures for support. In Module 5, Lesson 21, the Concept Development materials guide educators to support students during the lesson.
- In Module 5, Lesson 6, the "Margin Notes" provide teacher guidance for students who require more proficiency practice, opportunities for extension, and language support related to the lesson. In Module 1, Lesson 10, the teacher guides student conversations by evaluating and comparing the problem-solving processes using the Student Debrief provided in the lesson.

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.

- Module 4, the "Module Overview" explains connections from conceptual to procedural understanding. For example, it discusses the link between concrete and pictorial representations of problem situations and number sentences. In Module 5, Topic B, the lessons introduce the conceptual and procedural elements of the topic. For example, the materials explain how numbers decompose into more abstract procedures in this topic. Earlier modules provide the foundation for the conceptual work. Module 1 and Module 3 include an overview of each topic and module. The overview explains the conceptual development and reasoning behind the mathematical procedures throughout the lessons.
- Teachers use the Module Overview to understand the instruction for concepts in the topics. The Module Overview makes connections to how students are learning conceptually or procedurally from the TEKS. In Module 4, Topic D materials prompt students to solve problems involving the subtraction of numbers from eight. Initial lessons on the topic use objects and pictorial models, followed by number bonds and number sentences. In Module 5, Lesson 17 of the Concept Development section, the materials provide guidance to teach students to count to 100 and 100 by tens in both directions connecting to K.5A.

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

- In Module 3, Lesson 19, the materials prompt students to use linking cube sticks to discuss more and less concepts connecting to the abstract numeral representation of quantities. In

Module 4, Lesson 30, students learn to draw pictorial representations that connect to number sentences to represent word problems. Students fill in the numbers and sentence stems in the problem set based on their concrete linking cubes.

- Module 4 includes guidance for students to choose their strategy for solving story problems. Materials for students provide opportunities for practicing current concepts through concrete, pictorial, or abstract methods. In Module 4, Lesson 12, the materials prompt students to use linking cubes and 5-frames and write number sentences to solve story problems. "Problem Sets" include questions asking for concrete, pictorial, and abstract representations of current concepts.
- Module 2, Lesson 1, Concept Development section, provides an opportunity for students to explore shapes using a "mystery bag." The activity prompts students to identify specific shapes throughout the lesson. In Module 6, Lesson 3, the lesson engages students to draw figures that match the shapes in a presentation of concrete shapes, connecting their concrete shapes to pictorial representations.
- In Module 4, Lesson 33, teddy bear counters and a subtraction equation template support students in learning subtraction through hands-on activities and visual aids. In Module 1, Lesson 12, the materials prompt students to draw and count cubes above given numbers, connecting the concrete experience of counting with visual representations and numerical concepts.

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

- The "Student Debrief" in the lesson guides the teacher in supporting students to make connections between the concrete, representational, and abstract models. For example, Module 4, Lesson 30 Student Debrief, prompts the comparison of the pictorial to the number sentence. The Concept Development section guides the teacher in instructing students to create concrete representations and models of recording pictorial and abstract concepts. For example, Module 3, Lesson 7, provides opportunities for students to use linking cubes to compose the number five and then record these compositions in the problem set.
- In Module 5, Lesson 8, the materials provide an opportunity for students to make connections from concrete models to pictorial models. The materials prompt students to create their own pictorial models using 5 frames. In Module 2, Lesson 7, the materials prompt students to make connections between real-world figures and geometric terms by defining these terms using academic language and creating their own examples of 3-D figures.
- In Module 3, Lesson 6, the Problem Set asks students to identify how their pictorial shapes connect to the presentation of shapes in the materials. The Student Debrief guides educators to question students to clarify the attributes of the various shapes. Module 6, Lesson 1, Concept Development, provides exploration for students to create flat shapes and then draw representations of their constructions. The lesson concludes with opportunities for students to make connections and explain how the two shapes relate to one another.
- Module 1, Lesson 9 provides opportunities to use linking cubes to find and explain configurations of numbers up to five. The lesson concludes with counting dot configurations

and choosing the correct numeric representation. Module 4, Lesson 17, word problems include the use of objects and drawings to solve. The teacher asks questions that connect the concrete and pictorial representations to number sentences.

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 provide opportunities for students to develop their academic mathematical language using visuals. During Module 2, Lesson 1, "Concept Development," the teacher introduces academic vocabulary by using paper shapes as visuals to describe the attributes of shapes. In Module 3, Lesson 26, the students compare a physical model with the word less than in the problem set. They use a sentence stem to express their comparisons.
- Materials provide opportunities for students to develop their academic mathematical language using manipulatives. During Module 3, Lesson 10, students introduce the important word equal by using beans as manipulatives and working with visuals. The academic mathematical language for the lesson is bolded or italicized. In Concept Development, the margin notes support the teacher in teaching new academic mathematical vocabulary, including the words heavy and light, to the students using visuals.
- The margin notes in Module 2, Lesson 3, include guidance for using pictorial representations or manipulatives to introduce new vocabulary. The "Student Debrief" guiding questions in

Module 1, Lesson 18, help students solidify their understanding of the new vocabulary from the lesson.

- During Module 4, Lesson 19, the teacher introduces academic vocabulary for decomposing and subtraction equations using visuals and manipulatives during Concept Development. The materials provide opportunities for students to work in pairs, creating number sentences after rolling the die. In Module 2, Lesson 7, teacher guidance prompts students to establish a connection between the solid shape models and objects around the classroom that resemble the models. Prompts also direct students to draw the items they find and compare their drawings with a partner.

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

- The margin notes in the lessons provide suggestions to help students who struggle with vocabulary terms. For instance, in Module 2, Lesson 1, the margin notes suggest using body movements to reinforce the meaning of shape attributes. In Module 4, Lesson 40, the margin notes suggest using the sentence stem, "I picked a ___. ___ and ___ are partners to make 10," when talking with a partner.
- The "Module Overview" provides terminology for the lessons. For example, in the Module 6 Module Overview, the lists provide new and familiar terms, informing the teacher of the student's previous knowledge. In Module 4, Lesson 4, the teacher finds instructions for linking vocabulary to kinesthetic movement and familiar objects in the materials as a strategy for understanding part-whole relationships.
- In Module 2, Lesson 3, the Concept Development margin notes guide the teacher in providing opportunities for students to link key vocabulary with pictorial representations and kinesthetic movements. In the same lesson, the teacher uses the student debrief to ask questions and encourage students to speak and listen to new vocabulary.

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 educator is provided with a list of terminology and definitions in all Module Overviews to teach during instruction. In Module 4, Lesson 1, Concept Development, teacher guidance prompts students to discuss the meaning and usage of the word nickel. The teacher facilitates this interaction by asking students to turn and talk to one another. In Module 3, Lesson 25, the teacher poses the following question to students, "Which is more, 6 or 5?" to engage in language development during the concept development section. The teacher provides prompts to facilitate this interaction.
- In Module 3, Lesson 1, the materials guide the introduction of the term endpoint and provide questions about its significance in measuring objects. The materials provide the opportunity

for students to discuss the importance of endpoints. Module 3, Lesson 13 provides prompts for students to define capacity in their own words during the Student Debrief.

- Module 4, Lesson 19, discussion guidance prompts students to support their classmates with academic language by asking them questions like, "How did we use our math words to describe what happened in the song?". Module 3, Lesson 5, includes questions for partner conversations, asking students to share with their partner something they learned about length using the academic language of larger than and shorter than.
- In Module 2, Lesson 3, the teacher prompts ask students to use vocabulary precisely to identify and describe rectangles during debrief questions. Module 1, Lesson 19, provides opportunities for students to participate in discussions using sentence starters

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.

- The *OER K-5 Math Program and Implementation Guide* includes a summary of how TEKS (Texas Essential Knowledge and Skills) Mathematical Process Standards are embedded in each lesson. It states that the standards are "actively woven into the lesson structure." The K–5 Math Program and Implementation Guide also shows examples of how "TEKS Mathematical Process Standards" appear within lesson structures and materials.
- The materials integrate TEKS Mathematical Process Standards. For example, models, drawings, numeric representations, and precise language support students' communication of mathematical ideas. The integration of a variety of problem types in the materials provides opportunities for students to analyze given information and relationships. The Student Debrief of lessons provides opportunities for students to explain and justify their mathematical thinking.
- The *Grade K Course Guide* table lists the TEKS Mathematical Process Standards and indicates where they are addressed in each module. The *Grade K Course Guide* also provides a scope and sequence that includes the TEKS Mathematical Process Standards for each module.

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

- The "TEKS Mathematical Process Standards" section of the *OER K-5 Math Program and Implementation Guide* provides teacher guidance on how the process standards are integrated into the lesson structure throughout the course. It states that "They are seamlessly woven into the lesson structure to require the level of thinking and behaviors that the standards embody."
- The Grade K Course Guide outlines the TEKS Mathematical Process Standards (TEKS MPS) in various ways. The first is when they list each TEKS MPS in the Scope and Sequence to portray how they are incorporated and connected from one module to the other. Within the Knowledge and Skills columns in the Scope and Sequence, several of the items in the list cover the TEKS MPS. There is also a table that outlines where TEKS MPS are taught within the course, which also shows how they are incorporated and consistent throughout the course.

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

- Module 4 includes a description of how process standards are incorporated and connected throughout the unit. The TEKS Mathematical Process Standards (TEKS MPS) are connected throughout the unit as shown in Grade K, Module 4. In the Topic D Overview, TEKS MPS K.1F is specifically mentioned as a connection from Topic C. In the Topic G overview, TEKS MPS K.1C is highlighted as a connection to a lesson.
- The TEKS Mathematical Process Standards (TEKS MPS) are incorporated throughout the unit as shown in the Scope and Sequence section of the *Grade K 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 Grade K, Module 1.
- The Module 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, 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, "As they continue to work with counting, students explain and justify how they counted accurately (K.1G)."

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

- The *OER K-5 Math Program and Implementation Guide* outlines the cohesive integration of TEKS Mathematical Process Standards within each lesson, describing this integration as seamlessly woven into the lesson structure. Additionally, *OER K-5 Math Program and Implementation Guide* presents a table that summarizes the incorporation of TEKS Mathematical Process Standards across all lessons.

- The course materials include a detailed table outlining the TEKS Mathematical Process Standards that should be integrated into each module. The K-5 Math Program and Implementation Guide provides a comprehensive scope and sequence, outlining the TEKS Mathematical Process Standards for every lesson and module. Additionally, the *Grade K Course Guide* features a table that specifies the TEKS Mathematical Process Standards to be addressed in each 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.

- The materials provide opportunities for students to think mathematically. For example, Module 1, Lesson 33, "Concept Development," prompts students to think mathematically as they order numbers 10 to 1 and match numerals using Five-Group cards, a Five-Group mat, and linking cubes. In Module 5, Lesson 8, "Application Problem," the task prompts students to apply knowledge of rearranging the parts in number bonds to create the same total with greater numbers. Module 2, Lesson 2, Concept Development, provides guiding questions to lead students to mathematical thinking and guide their understanding of the concept being taught. Questions in the vignette include, "What does that tell you about measurement and unit sizes?"
- The materials provide opportunities to persevere through problem-solving. For example, Module 3, Lesson 17, Application Problem, provides an opportunity for students to work on one-to-one correspondence while drawing enough cheese for the mice to have. Module 4, Lesson 12, Concept Development, prompts the teacher to use linking cubes to explore addition concepts with the students using a duck scenario and open-ended questioning prompts such as, "Can we make a number sentence about our picture?" In this lesson, students are not bridging to the number sentence using a number bond, and the margin notes prompt the teacher to use it as a scaffold for students who may still need it.
- The materials provide opportunities for students to make sense of mathematics. Module 5, Lesson 15, Concept Development, provides a game, "Walk and Compare," for students to use comparative language to compare their objects with a partner. The "Problem Set" provides several tasks for students to make sense of comparisons. For example, Problems 1 and 2

provide three sets of objects for students to count, label, and identify which two sets are equal. In Problem 3, students have two sets of objects in different arrangements to count, label, and circle the group with more and number that is greater. Module 4, Lesson 15, Problem Set, prompts students to represent, decompose, and compose addition stories with drawings and equations.

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 multiple ways to solve problems and complete tasks. For example, Module 1, Lesson 32, "Student Debrief," prompts students to talk with their neighbor, "Show your neighbor the objects and numbers you drew. Tell your friend if you wrote the numbers first or drew the dots first. Tell them why you did so." For example, Module 1, Lesson 21, Concept Development, provides opportunities for students to reason about sets of seven in different arrangements and compare with a partner. Module 3, Lesson 17, Student Debrief, provides an opportunity for students to discuss their strategy with their peers. The prompt states, "What happened when you first took out the red and blue cubes? How did you know which set had more? Did someone else do it differently?"
- The materials support students in explaining that there can be multiple ways to solve problems and complete tasks. For example, Module 4, Lesson 25, Concept Development, prompts students to explain how they know that they have found all of the ways to decompose nine. Module 5, Lesson 15, Concept Development, includes prompts for students to explain their understanding of comparing through justification with physical objects and using words to explain why one item is greater than another.
- The materials support students in justifying that there can be multiple ways to solve problems and complete tasks. For example, Module 3, Lesson 2, Student Debrief, includes prompts guiding students to justification. A prompt states, "Did your partner find something that was longer for his string that was shorter for yours? Did she find something that was shorter for her string that was longer for yours? Why did that happen?" Module 4, Lesson 14, Concept Development, includes questioning for students to justify how they know where to place a number in the number bond. Module 3, Lesson 19, Problem Set, directs students to color the correct amount of beads to match a rolled number on a die for two quantities and prompts students to complete a sentence stem *for more than* and *less than* to justify their understanding of numbers through comparing lengths.

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

- The materials require students to make sense of mathematics through discussing math with their peers and with the teacher. For example, in Module 4, Lesson 1, Concept Development, students discuss joint problem situations with the teacher. The vignette prompts the teacher to ask, "Turn and talk to your partner. Partner A, tell a joint story about apples and bananas

that matches the same number bond." Module 4, Lesson 2, Student Debrief, provides prompts for students to discuss the composition and decomposition of numbers from their Problem Set with their partner. In Module 3, Lesson 19, Student Debrief, the teacher provides questions for students to discuss comparing numbers from their Problem Set with their partner and teacher.

- The materials support students' sense-making through doing math. For example, Module 2, Lesson 6, Application Problem, directs students to create a solid shape with clay. In Module 3, Lesson 17, Application Problem, the question prompts students to draw a picture to model equal amounts or just enough and discuss with a partner and the teacher how they knew what to draw. Module 3, Lesson 19, Application Problem, allows students to compare lengths using their names. Materials direct students to compare the lengths of letters of their names with a partner and apply greater than and less than reasoning.
- The materials support students' sense-making through writing about math. For example, in Module 3, Lesson 25, the materials direct students to fill in sentence stems when comparing numbers. Module 4, Lesson 14, Concept Development, includes prompts for the teacher, stating, "Turn and talk to your partner about your cars on the track. What if we broke your group of 7 train cars into a part with 3 and a part with 4? Show the cars on your track and write a number sentence to tell about the new story."

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.

- The materials support teachers in guiding students to explain their problem-solving approaches. For example, in Module 4, Lesson 5, "Student Debrief," the teacher asks students, "Which strategy did you use to solve ...?" Module 5, Lesson 7, Student Debrief, includes prompts for students to share the pattern they see in their numbers. The teacher prompt states, "How does counting the Say Ten way help you understand?" Module 2, Lesson 5, Student Debrief, includes the prompt "Explain to your partner what you drew on the back of your paper. Can you think of other objects around you that are these solid shapes?" Module 3, Lesson 4, Student Debrief, provides questions for teachers to prompt students to explain their strategies for comparing the length of linking cube sticks in a sorting activity. A prompt states, "Was it more efficient to sort the sticks the second time? Why?" This prompt guides students to justify the efficiency of their problem-solving methods.
- The materials guide the teacher to have students justify their problem-solving approaches. Module 2, Lesson 3, "Fluency Practice," includes a prompt for students to justify why they identify a shape as a triangle. The materials support teachers in guiding students to share and reflect on their problem-solving approach, which includes explanations. For example, Module 5, Lesson 14, "Application Problem," provides a prompt to ask students to explain how their drawing matches the number bond. Module 6, Lesson 2, Student Debrief, provides the question, "What are some ways we could sort them?" This question guides students to share and explain ways to sort shapes. Module 1, Lesson 32, Student Debrief, supports teachers in guiding students' visualization and understanding of the concept of "one more" with different starting numbers. Guidance supports teachers to prompt students to explain their solutions, make arguments, and justify their reasoning.

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

- The materials provide prompts and guidance for teachers to assist with anticipated misconceptions at the beginning of each module in the "Collaboratively Troubleshooting Student Misconceptions" section. The table in the section includes the Topic, TEKS, Student Misconceptions, and How to Bridge for a Better Understanding. For example, in Module 1, the anticipated misconception for Topic E is that students skip objects when counting. The guidance given is to have students place the objects on a number path or in a separate container as they count. For Topic B, example prompts for students naming attributes instead of categories when describing their sort include, "Blue, red, and green are all what?". In Module 2, the recommended bridge for students calling 3-D shapes 2-D shapes is to show students real-world objects as additional examples for each 3-D shape. Module 3 Overview guides teachers on addressing anticipated misconceptions. For example, in Module 3, Topic C, students may use vague size terms to describe weight or length. The guidance suggests using gestures and rephrasing questions to clarify understanding.
- The materials include prompts to assist teachers in providing explanatory feedback based on anticipated misconceptions. For example, the Grade K *Course Guide*, Collaboratively Troubleshooting Student Misconceptions for Module 1, Topic F, provides teacher-student dialogue-based misconceptions that teachers can use and adapt for other misconceptions. In addition, Module 1, Lesson 2, provides questions (prompts) that teachers can use to lead the discussion and address misconceptions.
- Materials offer guidance for teachers to provide explanatory feedback based on student responses. For example, the margin note for Module 1, Lesson 11, "Multiple Means of Representation," includes guidance to support students in counting dot configurations that are scattered. Scaffolds include touch and count, mark and count, and using cubes to mark and count the dot configurations accurately.
- 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.