

Model Publisher Name	Program Name
Texas Education Agency, Open Education Resources	Bluebonnet Learning Grade 2 Math, Edition 1
Subject	Grade Level
Mathematics	2

<b>Texas Essential Knowledge and Skills (TEKS) Coverage:</b>	<b>100%</b>
<b>English Language Proficiency Standards (ELPS) Coverage:</b>	<b>100%</b>
<b>Quality Review Overall Score:</b>	<b>223 / 227</b>

## 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, lack suggested pacing guides for various instructional calendars, provide explanations for the rationale of unit order and concept connections, nor do they 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 the language standards of the lesson.
- 3.3 Support for Emergent Bilingual Students: The materials do not include teacher guidance on providing linguistic accommodations for various 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 curriculum offers a structured approach to grade 2 math instruction, incorporating a detailed scope and sequence that outlines the concepts and knowledge to be taught across various units. Each unit is supported by pacing guides that accommodate different instructional calendars, ensuring effective implementation regardless of the number of instructional days available. The program includes comprehensive unit overviews that provide essential background knowledge, academic vocabulary, and misconceptions necessary for teaching concepts effectively.

Campus and district instructional leaders should consider the following:

- The program includes instructional materials with assessment 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. The materials do not include separate small group lessons for intervention or extension.
- The program includes materials that allow students to work through the vertically aligned problem-solving model and to think critically about mathematics. 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	<a href="#">Materials include a scope and sequence outlining the TEKS, ELPS, concepts, and knowledge taught in the course.</a>	5/5
1.1b	<a href="#">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).</a>	2/2
1.1c	<a href="#">Materials include an explanation for the rationale of unit order as well as how concepts to be learned connect throughout the course.</a>	2/2
1.1d	<a href="#">Materials include guidance, protocols, and/or templates for unit and lesson internalization.</a>	2/2
1.1e	<a href="#">Materials include resources and guidance to support administrators and instructional coaches with implementing the materials as designed.</a>	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 "Grade 2 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 "Grade 2 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 effective implementation for extending the 165-day instructional calendar by up to 30 days, which supports schools with various instructional calendars.

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

- The grade 2 *Course Guide* includes a "Sequence of Grade 2 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, "Module 5 builds on the work of 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 3" describes the connection to "Module 2." The overview states, "In Module 2, students added and subtracted measurement units within 100. In this 22-day Grade 2 module, students expand their skills and understanding of units by building ones, tens, and hundreds up to a thousand with straws."

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

- The materials include an *Bluebonnet Learning 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 *Bluebonnet Learning K-5 Math Program and Implementation Guide* features 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.

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

## Intentional Instructional Design

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

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

- 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.



## Intentional Instructional Design

1.3	Lesson-Level Design	31/34
1.3a	<a href="#">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.</a>	27/30
1.3b	<a href="#">Materials include a lesson overview outlining the suggested timing for each lesson component.</a>	1/1
1.3c	<a href="#">Materials include a lesson overview listing the teacher and student materials necessary to effectively deliver the lesson.</a>	2/2
1.3d	<a href="#">Materials include guidance on the effective use of lesson materials for extended practice (e.g., homework, extension, enrichment).</a>	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 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 standards. 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 5, Topic A, Lesson 1, states, "Use place value disks and place value charts to help students navigate the following vocabulary.... Add new words to the wall and point to the words accompanied by a visual." 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, Module 5, Lesson 6, Concept Development aligns to 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 introduces boldface terminology in the vignette, then has students interact with that terminology directly and indirectly in the "Problem Set," "Student Debrief," "Exit Ticket," and "Homework."

- The *Teacher Edition* for modules 1–8 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," "End-of-Module Assessment Task," and "Exit Tickets" for each lesson. Detailed teacher guidance for informal instructional assessment opportunities is provided within individual lesson components.
- Lesson plans include a list of teacher questions and potential student responses for each lesson. For instance, Module 1, Topic B, Lesson 4, includes a Concept Development section with the teacher question: "Our  $9 + 4$  is now a ten-plus fact. What fact can you see in the drawing?" followed by the student response " $10 + 3 = 13$ ."

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**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, in Module 2, Topic C, Lesson 6 provides a Suggested Lesson Structure with Fluency Practice for 11 minutes, Application Problem for seven minutes, Concept Development for 32 minutes, and Student Debrief for 10 minutes, for a total time of 60 minutes.
- The materials provide guidance on how long to spend on each Fluency Practice activity included in each lesson of the *Module Teacher Edition*. There may be more than one fluency activity that needs to be done within a specific allotted time frame. For example, in Module 2, Topic C, Lesson 6, there are two fluency activities to complete within 12 minutes. Each activity has a suggested time allotment: Happy Counting for two minutes and Sprint: Find the Longer Length for nine minutes.

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**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. The Module Overview has a list of suggested tools and representations that include both 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 required 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 6, Topic B, Lesson 4, under Fluency Practice for the Fluency Practice Sets activity, the materials needed include "(S Fluence Practice Sets (Lesson 1 Fluence Practice Sets)." For the Concept Development activity, the materials needed include "(T/S) counting bears, 12 beans."

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

- The *Bluebonnet Learning K-5 Math Program and Implementation Guide* includes guidance on homework usage, found in the Lesson Structure section. It emphasizes that homework aims to reinforce understanding and confidence with previously learned material rather than introducing 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 *Bluebonnet Learning K-5 Math Program and Implementation Guide* suggests utilizing the lesson's Fluency component for additional practice outside of school hours.
- The *Bluebonnet Learning K-5 Math Program and Implementation Guide* includes guidance on using the extension problems found in the student Problem Sets for each lesson, such as "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 on how teachers could flexibly use the materials to meet the needs of their students.
- The materials periodically provide teacher suggestions for student extension and enrichment opportunities within the individual lesson components, noted in the *Module Teacher Editions* in boxes entitled "Notes on Multiple Means of Engagement (MME)." For example, in Module 4, Lesson 10, Concept Development includes an MME box that states, "Offer a relatable example to scaffold understanding....Offer similar examples until students demonstrate understanding."

## Progress Monitoring

2.1	Instructional Assessments	24/24
2.1a	<a href="#">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.</a>	12/12
2.1b	<a href="#">Materials include the definition and intended purpose for the types of instructional assessments included.</a>	2/2
2.1c	<a href="#">Materials include teacher guidance to ensure consistent and accurate administration of instructional assessments.</a>	2/2
2.1d	<a href="#">Diagnostic, formative, and summative assessments are aligned to the TEKS and objectives of the course, unit, or lesson.</a>	6/6
2.1e	<a href="#">Instructional assessments include standards-aligned items at varying levels of complexity.</a>	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 materials include "Mid-Module Assessment Tasks" and "End-of-Module Assessment Tasks" in grade 2 to assess student progress and identify misconceptions. These assessments include open-ended and fill-in-the-blank question types, helping to monitor learning objectives and guide instructional planning.
- The materials for grade 2 include lesson-level exit tickets, which vary in type and include solving with manipulatives, drawing pictures, and fill-in-the-blank. In addition, lesson-level application problems are included which are open-ended.
- The materials include a suggestion for using the mid-module assessment questions as a diagnostic.
- Diagnostic assessments are included throughout the lesson, as outlined in the *Bluebonnet Learning 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 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."

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

- The *grade 2 Assessment Guide* defines the various types of assessments, such as observational, mid-module, and end-of-module assessments.
- The *grade 2 Assessment Guide* thoroughly explains the purpose and rationale behind each assessment and when to administer it.
- 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 *Bluebonnet Learning 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.

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

- The *grade 2 Assessment Guide* includes teacher guidance on assessment implementation, including suggested additional days for mid-module and end-of-module assessments.
- The *Assessment Guide* includes rubrics for each assessment to ensure confident scoring support for accurate administration. It also includes allotted time for administering, analyzing, and supporting student understanding.

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

- The materials include summative assessments that demonstrate alignment with the TEKS and objectives of the course, unit, and lesson.
- The materials include formative assessments that demonstrate alignment with the lesson objectives. According to the *K-5 Math Component Navigation Guide* and *Bluebonnet Learning 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 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 3 Mid-Module Assessment." Another TEKS-aligned diagnostic assessment can be found within the "Fluency and Application Problems," as outlined in the *Bluebonnet Learning K-5 Math Program and Implementation Guide*, which can be used for anticipatory purposes.

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

- The materials include mid-module assessments and end-of-module assessments with at least two levels of complexity, such as drawing, number bonds, and number sentences. For example, the "Module 1 End-of-Module Assessment" shows several levels of complexity and is standards-aligned.
- The materials include lesson-level exit tickets for grade 2; these exit tickets increase in complexity as the school year progresses.

## Progress Monitoring

2.2	Data Analysis and Progress Monitoring	4/4
2.2a	<a href="#">Instructional assessments and scoring information provide guidance for interpreting and responding to student performance.</a>	2/2
2.2b	<a href="#">Materials provide guidance for the use of included tasks and activities to respond to student trends in performance on assessments.</a>	1/1
2.2c	<a href="#">Materials include tools for students to track their own progress and growth.</a>	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 *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 materials include a "Class Record Sheet" in the grade 2 *Assessment Guide* for teachers to track student progress on topics. The last column is designated for the next steps.

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### **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.
- 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 8, a common student misconception is that "Students misidentify or miscount the number of vertices." One of the recommendations included in the "Bridge to Understanding" is to "Have them apply counting strategies for scattered configurations." A picture is provided along with steps students can follow.

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

- The *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 *Bluebonnet Learning 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	<a href="#">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.</a>	3/3
3.1b	<a href="#">Materials include pre-teaching or embedded supports for unfamiliar vocabulary and references in text (e.g., figurative language, idioms, academic language). (T/S)</a>	2/2
3.1c	<a href="#">Materials include teacher guidance for differentiated instruction, enrichment, and extension activities for students who have demonstrated proficiency in grade-level content and skills.</a>	3/3

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

Evidence includes, but is not limited to:

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

- The *Teacher Edition* for grade 2 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.
- In the grade 2 lessons, materials include 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.
- 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.

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**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 Bluebonnet Learning K-5 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 mathematics with just-in-time supports to help internalize words.

- The *Teacher Edition* for grade 2 features a Module Overview, which includes a list of terminology that includes a definition and a 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. For example, in Module 2, Lesson 6, the margin note suggests pairing gestures with questioning to help students understand the comparative language.
- There is embedded support for academic vocabulary in the margin notes of the lessons. For example, in Module 2, Lesson 6, the margin note suggests pairing gestures with questioning to help students understand the comparative language. Another example is Module 6, Lesson 18, in the Multiple Means of Engagement; there is an opportunity for an activity that can be done at the beginning of the lesson to pre-teach, build, and connect vocabulary.

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**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 as margin notes with extension ideas for students who have demonstrated proficiency. During the application problem, there may be an extension of additional practice for students who have demonstrated proficiency. For example, in Module 4, Lesson 22, the margin note suggests having students show multiple ways to subtract  $111 - 99$  and represent it in several ways.
- The materials include teacher guidance for differentiated instruction for those who have demonstrated proficiency. For example, in Module 6, Lesson 11 second Notes on Multiple Means of Engagement margin note, it states, "Students who have demonstrated proficiency..." and provides a recommendation for differentiation.
- The materials include teacher guidance for differentiated enrichment opportunities for those who have demonstrated proficiency. For example, Module 6, Lesson 11, Application Problem includes an extension for students, which is an opportunity for enrichment. The guidance states "Extension: How should Lulu cut her brownies if she wants to equally serve 12 people? 16 people? 20 people?" Also, Module 6, Lesson 17, Multiple Means of Engagement margin box includes an opportunity for enrichment, stating, "Challenge students who grasp the concept of even numbers quickly to extend the pattern. Can they prove whether 52 is even? How about 73?"
- The *Bluebonnet Learning 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	<a href="#">Materials include prompts and guidance to support the teacher in modeling, explaining, and communicating the concept(s) to be learned explicitly (directly).</a>	6/6
3.2b	<a href="#">Materials include teacher guidance and recommendations for effective lesson delivery and facilitation using a variety of instructional approaches.</a>	4/4
3.2c	<a href="#">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.</a>	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 4, Lesson 23, the teacher models a subtraction problem. The materials include guidance for teachers on how to model the concept and include notes to help them navigate 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 2, Lesson 5, the vignette guides the teacher in explaining a benchmark for the understanding of the size of a centimeter and then relating that to the size of a meter stick.

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**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 structure. 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 a lesson, the teacher is guided to facilitate conversation and reflect on the lesson.

- The materials include several instructional approaches, including small-group instruction. For example, in Module 3, Lesson 19, there are instructions at the end of the Concept Development vignette to continue working with partners while the teacher meets with a small group.

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**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 portion 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. Additionally, all lessons feature a problem set for students to work on independently. 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 *Bluebonnet Learning 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	<a href="#">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.</a>	1/2
3.3b	<a href="#">Materials include implementation guidance to support teachers in effectively using the materials in state-approved bilingual/ESL programs.</a>	1/1
3.3c	<a href="#">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.</a>	8/8
3.3d	<a href="#">If designed for dual language immersion (DLI) programs, materials include resources that outline opportunities to address metalinguistic transfer from English to the partner language.</a>	Not scored

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

Evidence includes, but is not limited to:

**Materials include teacher guidance on providing linguistic accommodations for various levels of language proficiency [as defined by the English Language Proficiency Standards (ELPS)], which are designed to engage students in using increasingly more academic language.**

- The 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 *Bluebonnet Learning 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.

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

- The *Bluebonnet Learning 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 *Bluebonnet Learning 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 *Bluebonnet Learning 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 *Bluebonnet Learning 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.

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**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. These 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 8, Lesson 2, in the Notes on Multiple Means of Action and Expression margin note, where students use cognates for the shapes to make that cross-linguistic connection. In Module 7, Lesson 13, the Multiple Means of Action and Expression margin note provides students an opportunity to build background knowledge by guiding teachers to ask students to create a poster for the class with a variety of examples of halves, thirds, and fourths alongside non-examples of the same.
- The 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 written discourse.
- The materials include writing prompts for all students throughout the materials. For example, in Module 2, Lesson 1, the exit ticket asks students to explain why or why not when considering whether a student's work is correct or incorrect.

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**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 *Bluebonnet Learning 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. Insert evidence narrative for guidance here.

## Depth and Coherence of Key Concepts

4.1	Depth of Key Concepts	3/3
4.1a	<a href="#">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.</a>	1/1
4.1b	<a href="#">Questions and tasks progressively increase in rigor and complexity, leading to grade-level proficiency in the mathematics standards.</a>	2/2

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

Evidence includes, but is not limited to:

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

- The materials align with the depth of understanding required by TEKS at the lesson level. TEKS 2.4.C requires students to solve one-step and two-step problems within 1,000 using a variety of strategies. Module 5, Lesson 4 includes the use of strip diagrams and number bonds for students to use when solving word problems.
- The materials align with the depth of understanding required by TEKS 2.4B at the lesson level. In Module 4, Lesson 24, the problem set directs students to subtract using the vertical method, which is the standard algorithm.

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

- The tasks progressively increase in rigor and complexity, leading to grade-level proficiency. For example, in Module 2, Lesson 2, students measure the length of an object using centimeter cubes. In Lesson 5 of the same module, students must apply their knowledge using mental benchmarks. Additionally, Module 2, Lesson 4, introduces students to concepts of centimeters and meters, while Lesson 9 focuses on estimating, measuring, and comparing measurements. In Module 3, Lesson 2, teachers instruct students to represent the number 124 using a base ten pictorial model. In Lesson 10, students model with base-ten pictorial models, place value disks, and compare their illustrations. Module 4 introduces students to various strategies to assist them in solving word problems. The design of the problem sets requires students to demonstrate their understanding using these strategies. As students acquire additional strategies, they choose the method that best suits them for problem-solving. In Module 7, Lesson 19, students engage in a challenge to draw a line segment



representing a specific length. In Lesson 24, they must apply their understanding of length and problem-solving skills to resolve a problem about length.

- The questions included in the materials increase in rigor and complexity. During the "Student Debrief" section of lessons, teachers engage students in questioning that becomes more rigorous and complex as the academic year progresses. For example, in Module 4, Lesson 13, students connect the standard algorithm with visual models. Toward the end of the lesson, students provide justifications for their solutions. Similarly, in Module 4, Lesson 5, the debrief questions are straightforward and concise. However, by Module 4, Lesson 10, the questions become more intricate, encouraging students to analyze and justify their strategies for solving problems.

## Depth and Coherence of Key Concepts

4.2	Coherence of Key Concepts	12/12
4.2a	<a href="#">Materials demonstrate coherence across courses/grade bands through a logically sequenced and connected scope and sequence.</a>	2/2
4.2b	<a href="#">Materials demonstrate coherence across units by explicitly connecting patterns, big ideas, and relationships between mathematical concepts.</a>	3/3
4.2c	<a href="#">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.</a>	3/3
4.2d	<a href="#">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.</a>	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 2 Scope and Sequence" outlines a logical progression for teaching grade 2 content. It begins with basic addition and subtraction up to 100 in Module 1 and advances to addition and subtraction within 1,000 in Module 5.
- The *Course Guide* includes a table outlining the progression of mathematical concepts. This table establishes a sequential order for the progression of math concepts from one grade level to the next, offering a rationale for the organization of modules within the "Module Overviews."

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

- The materials demonstrate coherence by connecting relationships between Modules. For example, in grade 2, students explore place value relationships in Module 3, which they later apply to adding and subtracting three-digit numbers in Module 4. Additionally, the materials include a discussion of the importance of understanding foundational concepts before

moving on to other topics. For example, student proficiency is expected for counting numbers up to 1,200 and place value before moving to compare numbers.

- The instructional materials cover important concepts within each module through an overview detailing the objectives and connections between lessons. Each module contains key ideas and essential concepts for every lesson, with a thorough Module Overview naming the fundamental concepts, tools, and representations throughout the unit.

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**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 2 align with the foundational standards from grade 1 and continue to build upon them. For example, in Module 3, students expand upon their understanding of place value up to 120 in grade 1 to understand numbers up to 1,200. The terminology in grade 2 remains consistent with the terminology from grade 1. For example, in Module 1, Lesson 4, students use their ability to manipulate numbers by using the concept of making ten, which was learned in grade 1. Grade 2 content builds upon the material from the previous grade level. For example, the addition and subtraction concepts introduced in grade 1, Module 6, are further developed in grade 2, Module 1. Grade 1, Module 2, Lesson 5 connects to grade 2, Module 1, Lesson 4. Additionally, grade 2, Module 6, which includes the foundations of multiplication, division, and area, lays the foundation for future learning in grade 3, Module 4, further exploring multiplication and area concepts.

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**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.**

- Module 1 introduces students to fluency skills and procedures and the place value system, building on knowledge from grades K and 1. In Module 4, students further develop their understanding of place value strategies by adding and subtracting two-digit numbers. The lessons in Module 1 prepare students for the content throughout the module, focusing on foundational skills necessary for success in grade 2.
- The course guide outlines the rationale for the sequence of modules in grade 2, emphasizing the connections between new concepts and previous instruction of skills. For example, Module 3 extends place value knowledge to 1,200 and incorporates proportional models for representing numbers. Visual aids, such as strip diagrams, in subtraction lessons to illustrate the relationship between numbers. The materials incorporate fluency sprints to build fluency in addition and subtraction and the use of various strategies to solve problems.
- The materials connect prior knowledge to new math concepts. Grade 1 focuses on addition and subtraction within 20, grade 2 emphasizes word problems up to 1,000 utilizing place value strategies while grade 2 uses base ten blocks and pictorial models up to 1,200 to enhance their understanding of place value relationships and expanded notation in the lessons.

## Depth and Coherence of Key Concepts

4.3	Spaced and Interleaved Practice	8/8
4.3a	<a href="#">Materials provide spaced retrieval opportunities with previously learned skills and concepts across lessons and units.</a>	4/4
4.3b	<a href="#">Materials provide interleaved practice opportunities with previously learned skills and concepts across lessons and units.</a>	4/4

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

Evidence includes, but is not limited to:

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

- The grade 2 modules include fluency activities in each lesson to allow for spaced retrieval opportunities of previously learned skills. The activities progressively build upon each other within and across units. The application problems in the lessons offer chances for spaced retrieval of concepts. The application problem is provided to support learning for the current concept.
- Grade 2, Module 1 introduces students to the concepts of addition and subtraction within 100. These skills further develop in Module 4 for calculations within 200, and in Module 5 for calculations within 1,000. Module 2 emphasizes the addition and subtraction of lengths. This concept is in Module 6 when solving word problems about length. In Module 6, Lesson 4, students focus on composing arrays. This concept is in Module 6, Lesson 7, when solving word problems involving arrays.

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

- The materials provide interleaved practice opportunities with previously learned concepts. For example, in Module 8, there are fluency activities with a focus on place value that provide interleaved practice opportunities for students. In addition, the "Mid-Module Assessments" and "End-of-Module Assessments" assess multiple SEs across multiple lessons, providing interleaved practice within each assessment. The modules provide interleaved practice by reviewing concepts at increasing levels of complexity. Module 5, Lesson 7 includes subtraction practice focusing on utilizing various problem-solving strategies. Module 4, Lesson 5 includes various problems for students to solve in "Concept Development" based on place value strategies to align to TEKS 2.4C. Specific to TEKS 2.4C, students are required to learn a strategy to solve problems using place value strategies. The "Problem Set," "Homework," and "Exit Ticket" ask students to solve the problems and do not prescribe or

require one specific place value strategy. The student debrief asks students various questions about the strategies they used.

## Balance of Conceptual and Procedural Understanding

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

- The materials provide questions and tasks for students to analyze and evaluate their own work and that of their peers during the "Student Debrief". For example, Module 4, Lesson 5, provides questions for the teacher to have students evaluate the strip diagrams used for problem-solving. A variety of manipulatives are provided to enhance conceptual understanding of the material. For example, Module 4, Lesson 1, provides tasks for students to explore concepts such as adding or subtracting one or ten using place value disks. The materials provide additional tasks for using manipulatives like Rekenrek or bundled straws to help them grasp the concept of grouping numbers into tens and ones. In Module 5, Lesson 6, the materials task students to use models such as centimeter cubes and various objects to help them understand concepts related to length and measurement. Module 3, Lesson 8, provides tasks to use a place value chart to represent a number before plotting it on an open number line. Module 8, Lesson 9, provides the task of using pattern blocks to interpret fractions and identify the required blocks to create a given shape, then drawing a corresponding shape composed of halves or thirds.
- In Module 2, Lesson 2, the materials provide guidance for the teacher to question students to identify inaccuracies in a pictorial representation of measurement. The materials provide different models in the problem set to understand concepts. The materials in Module 4, Lesson 1, provide guidance for the teacher to question students on applying their own judgment as outlined in TEKS 2.1C. Module 5, Lesson 10, the student debrief provides prompts to analyze and compare the strategies used in solving a multi-step word problem between the standard algorithm and chip model solution methods.

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

- The "Concept Development" section of the lesson prompts students to construct models that depict various situations at the teacher's prompt. For example, Module 2, Lesson 7, prompts students to create diverse models and representations of place value, which they then compare to the written number. The application problem of Module 1, Lesson 3, prompts students to create a representation to solve a word problem. The materials ask students to select and showcase varying representations to the class, as indicated in the accompanying marginal notes.
- Module 3, Lesson 8, prompts students to craft open number lines to represent various values using ones, tens, and hundreds. The problem set prompts students to generate visual representations. Module 4, Lesson 4, prompts students to produce strip diagrams or number bonds for additions and subtractions involving multiples of 10 and additional units. The same lesson also prompts students to create new numerical expressions. Module 7, Lesson 2, prompts students to create a pictograph using the given information and ask a comparative question based on the data.

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

- The "Concept Development" section of the lesson prompts students to construct models that depict various situations at the teacher's prompt. For example, Module 2, Lesson 7, prompts students to create diverse models and representations of place value, which they then compare to the written number. The application problem of Module 1, Lesson 3, prompts students to create a representation to solve a word problem. The materials ask students to select and showcase varying representations to the class, as indicated in the accompanying marginal notes.
- Module 3, Lesson 8, prompts students to craft open number lines to represent various values using ones, tens, and hundreds. The problem set prompts students to generate visual representations. Module 4, Lesson 4, prompts students to produce strip diagrams or number bonds for additions and subtractions involving multiples of 10 and additional units. The same lesson also prompts students to create new numerical expressions. Module 7, Lesson 2, prompts students to create a pictograph using the given information and ask a comparative question based on the data.

## Balance of Conceptual and Procedural Understanding

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

- In Module 4, Lesson 22, students solidify their place value understanding by participating in the "Fluency Practice" of renaming the units. Each lesson contains fluency activities that build student automaticity and fluency. The fluency activities support lesson concept development. For example, in Module 2, Lesson 4, students use the rule from Module 2, Lesson 3, to practice their addition facts during the Fluency.
- In Module 5, Lesson 10, students complete sprints to build fluency skills for addition and subtraction strategies in the given time. Students complete sprints in a timed setting, focusing on improving their ability to accurately record facts from one sprint to the next.

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

- Teachers guide students to use different procedures with "Application Problems" in each lesson, providing practice and flexibility in the application of procedures in the materials. For instance, in Module 5, Lesson 21, Application Problem, teachers are prompted to encourage students to employ various procedures, which can then be debriefed with the class afterward. In Module 4, Lesson 27, students practice procedures for solving word problems and build



fluency required in second grade. They choose their strategy for solving the problems. In grade 2, students demonstrate flexibility in their practice. For example, during Module 3, Lesson 8, "Exit Ticket," students are asked to demonstrate more than one way of counting from \$280 to \$435.

- Students can apply what they learned by solving "Problem Sets" in Module 4, Lesson 17. These problem sets offer options for number sentence solutions, fostering flexible mathematical thinking. Students practice multiple methods to solve problems in Module 4, Lesson 25 of the materials, allowing them to build efficiency and accuracy with new strategies. They complete a "Student Debrief" and Exit Ticket to apply their learning through efficient and accurate procedures. Teachers use provided questions to help students reflect on their mathematical thinking.

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

- The teacher uses question prompts in the Student Debrief of each lesson to guide students in evaluating the accuracy and efficiency of their solutions and processes related to problem sets. For example, in Module 4, Lesson 12, students explain their solutions to a partner and compare their processes with one another. In Module 1, Lesson 13, educators ask questions that enable students to process and evaluate their completed problem sets in the Student Debrief. In this example in Lesson 10, the educator asks, "How could you solve this problem differently using a simplifying strategy?" In Module 2, Lesson 6, students measure and compare lengths efficiently and accurately, as directed by the teacher. During the Student Debrief, students compare how they each divided their shapes in half with a partner. The teacher questions students about partitioning shapes into two equal shares.
- During the "Concept Development" in Module 3, Lesson 9, students compare their work samples. The teacher facilitates a discussion on which process is more efficient. Educators facilitate a whole group experience where students are asked questions about their work and are encouraged to apply their thinking to other problems during the concept development. The students are asked to consider the following in Module 3, Lesson 1: "If the problem used standard form, could the numbers still be placed in order?". The materials provide opportunities for students to discuss their solutions within the lesson.

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

- In Module 1, Lesson 3, the teacher helps students develop concepts and use more efficient strategies to solve problems with larger numbers. The materials offer embedded support to assist in this process. In Module 6, Lesson 1, students learn to form equal groups for multiplication and arrange objects, effectively solving multiplication problems.
- In Module 3, educators are given guidance on structuring and sequencing topics in a way that helps students progress from using physical bundles of numbers to place value disks and, ultimately, to place value charts. The module overview offers TEKS and illustrative images to

aid educators in this process. The Concept Development materials provide structured guidance to help students during lessons. In Module 5, Lesson 8, students begin by using place value disks to support addition using a vertical algorithm.

- The teacher can use margin- notes in each lesson to provide appropriate support for students in need of proficiency practice, offer extensions, and supply language supports related to the lesson. The teacher guides student conversations in each lesson through Student Debriefs, evaluating and comparing the problem-solving processes used.

## Balance of Conceptual and Procedural Understanding

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

- The "Module Overview" outlines the connections between the conceptual and procedural aspects of the module. For example, in Module 2, the goal is to deepen the conceptual understanding of measurement. Each topic within a module explains what happens in the corresponding lessons. Module 2, Topic D, emphasizes how to apply conceptual understanding to choose appropriate tools and strategies to solve word problems. In Module 5, Lesson 14, the teacher uses a conceptual approach to help transition from drawing models to using algorithms to make subtraction problem-solving more efficient, connecting to 2.4B.
- Teachers use the Module Overview to understand the instructions for concepts in the Topics. The Module Overview makes connections to learning conceptually or procedurally from the TEKS. For example, in Module 4, Topic E, students use various strategies to decompose tens and hundreds, as presented in the module overview. The concepts being taught are connected to conceptually and procedurally learning from the TEKS. The materials include the use of place value charts and the vertical method to solve problems, starting with concrete representations using disks on the place value chart and progressing toward abstract ones.

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

- Grade 2 tasks students to use concrete models to develop connections between the concrete representation and the pictorial and abstract representation of an area. In Lesson 13, the materials use pictorial representations of square tiles to make connections to multiplication

arrays and perform repeated addition. In Module 4, Lesson 8, the materials task students to justify the connections between a pictorial model, which is an abstract representation of place value addition, and the given example. Students are prompted to create their representations to determine if the example is correct or incorrect.

- Module 4, Lesson 5, tasks students with the opportunity to solve story problems using a strategy of their choice with problem sets that include questions practicing current concepts. They are asked to use concrete, pictorial, and abstract representations such as place value charts, strip diagrams, and compensation.
- Module 6, Lesson 5, provides beans to form arrays and begin the basic understanding of multiplication in the concept development section. Module 1, Lesson 4, uses representations and algorithms to solve addition problems.
- In Module 2, Lesson 8, the "Concept Development" section tasks students to practice addition using concrete, pictorial, or abstract methods. In Module 5, Lesson 8, the problem set questions are designed to reinforce understanding of key concepts. This practice uses place value charts, place value disks, and strategies for composing a ten or hundred to solve addition problems.

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

- The materials include support with the "Read, Draw, Write" strategy to solve material problems by creating pictorial representations, justifying solutions through writing, and providing abstract equations. In Module 1, Lesson 8, for instance, shows an example of this process. In Module 4, Lesson 8, students justify the connections between a pictorial model, which is an abstract representation of place value addition, and the given example. The materials prompt the creation of representations to determine if the example is correct or incorrect.
- Module 2, Lesson 5, creates connections between concrete models and making pictorial models. The lesson also prompts students to explain how patterns help them solve problems. Module 8, Lesson 5, makes connections between real-world figures and geometric terms. The terms must be defined using academic language and by creating examples of 3-D figures.
- Module 5, Lesson 19, uses a place value chart and algorithm to solve a problem and explain the thought process. In Module 3, Lesson 19, concrete place value disks are connected to pictorial representations to help with concept development. This lesson precedes the problem set where students work with abstract sentences.
- Module 5, Lesson 19, prompts students to use a place value chart and algorithm to solve a problem and explain their thought process. In Module 2, Lesson 10, students apply the RWD (read, write, draw) strategy to draw a strip diagram and write a number sentence to solve a word problem. Module 6, Lesson 1, uses manipulatives to create equal groups and then draw different combinations of the same quantity to represent those equal groups.

## Balance of Conceptual and Procedural Understanding

5.4	Development of Academic Mathematical Language	14/14
5.4a	<a href="#">Materials provide opportunities for students to develop their academic mathematical language using visuals, manipulatives, and other language development strategies.</a>	3/3
5.4b	<a href="#">Materials include embedded guidance for the teacher addressing scaffolding and supporting student development and use of academic mathematical vocabulary in context.</a>	2/2
5.4c	<a href="#">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.</a>	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 4, Lesson 1, "Concept Development," the teacher uses a one-hundred chart and other concrete objects to help visualize and teach academic vocabulary related to more and less. In grade 2, students use a word bank to help develop their academic vocabulary. For example, during Module 8, Lesson 2, the "Exit Ticket" provides students with a list of polygon names to aid in identification.
- The materials provide opportunities for students to develop their academic mathematical language using manipulatives. During Module 4, Lesson 6, students learn the word compose. The teacher is instructed to create anchor charts and provide suggestions for hand gestures to help students remember and illustrate the word's meaning. In the active voice version, the subjects of the sentences are performing the actions. During Module 4, Lesson 17, the margin notes provide the teacher with information to teach new academic mathematical vocabulary during concept development. The students are given opportunities to use this vocabulary in context.

- In Module 3, Lesson 1, margin notes are included that provide support with new vocabulary using pictorial representations or manipulatives. In Module 2, Lesson 1, the "Student Debrief" includes guiding questions that help students solidify their understanding of the new vocabulary from the lesson.
- During the "Fluency Practice" in Module 2, Lesson 1, the teacher uses coins to demonstrate the roles of consumers and producers, introducing academic vocabulary through visuals and manipulatives. In Module 5, Lesson 1, students practice addition using place value strategies with the problem set. They aim to understand how to combine numbers based on their place value.

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

- During Module 4, Lesson 1, Concept Development, the materials provide guidance for the teacher to use sentence frames for developing academic vocabulary related to one more, one less, ten more, and ten less. In Module 4, Lesson 16, the margin notes suggest keeping the words addend, rename, bundle, expanded form, and partners to ten on a word wall for the lesson. These words address the mathematical vocabulary required. The notes also recommend including a visual to support the meaning of each word.
- The Module Overview includes a list of terminology and definitions to teach during the lessons. The materials include notes about vocabulary within lesson components for teachers. For example, in Module 2, Lesson 7, the teacher is guided to use sentence frames and write the words.
- All Module Overviews include a list of terminology and definitions. In Module 3, Lesson 2, the notes in the multiple means of engagement guide students to listen, read, write, and speak with new vocabulary using sentence frames to describe the attributes of shapes. In Module 8, Lesson 4, the Student Debrief provides teacher prompts to encourage students to describe the attributes of various quadrilaterals using new vocabulary.

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**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 teacher is provided with a list of terminology and definitions in all Module Overviews to teach during instruction. In Module 4, Lesson 19, Concept Development, students turn to their partners to discuss and solidify their understanding and practice academic vocabulary using place-value language. In Module 2, Lesson 4, teacher guidance prompts students to discuss with their partners the decision to measure things in meters or centimeters.
- In Module 7, Lesson 13, the guiding questions in the Student Debrief help students think flexibly about mathematical language and numbers. For example, "Students are asked to consider alternative ways of thinking about \$1." In Module 8, Lesson 2, the teacher

encourages students to discuss the attributes of a polygon by turning and talking to their peers.

- In Module 3, Lesson 2, the students are guided to listen, read, write, and speak using new vocabulary and sentence frames. In Module 8, Lesson 4, the students are prompted to describe the attributes of various quadrilaterals using new vocabulary.

## Balance of Conceptual and Procedural Understanding

5.5	Process Standards Connections	6/6
5.5a	<a href="#">Process standards are integrated appropriately into the materials.</a>	1/1
5.5b	<a href="#">Materials include a description of how process standards are incorporated and connected throughout the course.</a>	2/2
5.5c	<a href="#">Materials include a description for each unit of how process standards are incorporated and connected throughout the unit.</a>	2/2
5.5d	<a href="#">Materials include an overview of the process standards incorporated into each lesson.</a>	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 *Bluebonnet Learning K-5 Math Program and Implementation Guide* includes a summary of how the TEKS (Texas Essential Knowledge and Skills) Mathematical Process Standards are embedded in each lesson. The *Bluebonnet Learning K-5 Math Program and Implementation Guide* states they are "seamlessly woven into the lesson structure." The K-5 Math Program and Implementation Guide provides a bulleted list of some examples of how the "TEKS Mathematical Process Standards" live in these materials.
- The *Grade 2 Course Guide* provides a table listing the TEKS Mathematical Process Standards and where they are addressed in each module. It also includes a scope and sequence specifying the TEKS Mathematical Process Standards for each module.

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

- The "TEKS Mathematical Process Standards" section of the *Bluebonnet Learning 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 2 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.

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

- The TEKS Mathematical Process Standards (TEKS MPS) are incorporated throughout the unit as shown in the Scope and Sequence section of the *Grade 2 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.
- The TEKS Mathematical Process Standards (TEKS MPS) are connected throughout the unit as shown in Grade 2, Module 1. In the Module Overview, TEKS MPS 2.1C is specifically mentioned to show how it begins in this Module at a more guided level and then evolves throughout the Modules. There is also a note in the Lesson 4 Problem Set paragraph that states that 2.1C is used in the RDW approach, which is used all throughout the module and across modules and courses.
- 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, "Throughout module 1, students engage in the TEKS mathematical process standards by selecting techniques that help them to solve addition and subtraction problems efficiently (2.1C)."

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

- The *Bluebonnet Learning 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, *Bluebonnet Learning 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 *Bluebonnet Learning 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 2 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	<a href="#">Materials provide opportunities for students to think mathematically, persevere through solving problems, and to make sense of mathematics.</a>	3/3
6.1b	<a href="#">Materials support students in understanding, explaining, and justifying that there can be multiple ways to solve problems and complete tasks.</a>	6/6
6.1c	<a href="#">Materials are designed to require students to make sense of mathematics through doing, writing about, and discussing math with peers and teachers.</a>	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 to think mathematically. For example, the Module 2, Lesson 5, "Concept Development," vignette includes teacher guidance to support student connections between estimates using benchmarks and actual measurements. A prompt for students states, "Can that help you estimate the length of your math book? Estimate the length of your math book, and then measure it with your centimeter ruler to see how close you got." Module 6, Lesson 8, "Application Problem," provides an opportunity for students to make connections between division and repeated subtraction. To support mathematical thinking in the Application Problem, a margin note states, "Support solving the problems and writing the repeated subtraction sentences by providing manipulatives. Encourage students to role-play the story problems with a partner. Have them pause to write the corresponding repeated subtraction sentence every time they move manipulatives into a group." Module 4, Lesson 21, Concept Development, asks questions to support mathematical thinking. The vignette includes the question, "Why do I only need to model 122 and not 80?" during practice with place value disks to subtract.
- Materials provide opportunities for students to persevere through problem-solving. For example, Module 7, Lesson 14, Application Problem, provides an opportunity for students to problem solve and *add to starting with an unknown problem*, "Dante had some money in a jar. He puts 8 nickels into the jar. Now he has 100 cents. How much money was in the jar at first?" This problem includes a hidden step of finding the value of eight nickels. The note with the Application Problem provides guidance for students who jump to subtracting 100 - 8. Module 8, Lesson 1, Concept Development activity for students builds in complexity from creating a shape with three sides on geoboards to creating a shape with nine sides on a geoboard.

Teacher guidance prompts the teacher to create nine charts as students create shapes to demonstrate the multiple ways a shape can look while sharing the same attributes.

- Materials provide opportunities for students to make sense of mathematics. Module 4, Lesson 18, "Problem Set," includes a problem that asks students to make sense of a solution strategy through analysis of another student's work appearing in the problem. The prompt states, "Jessica is working through a problem. She shows her work below. Do you agree with Jessica's work? Why or why not?" Module 5, Lesson 7, Application Problem, prompts students to solve a problem by inviting them to use a previously learned strategy. The notes state, "Encourage students to explain their thinking about why they used the strategy they chose." Module 7, Lesson 14, Concept Development materials provide opportunities for students to make sense of mathematics through applying counting a collection of coins within different types of word problems.

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

- The materials support students in understanding that there can be multiple ways to solve problems and complete tasks. Module 2, Lesson 9, "Student Debrief," prompts students to compare how their strategies are the same and different from their partner. Module 5, Lesson 7, prompts students to discuss the strategies they used to solve problems. Module 6, Lesson 3, Concept Development, includes a variety of ways to represent and solve multiplication, such as strip diagrams and repeated addition. In Module 4, Lesson 5, Problem Set, students use visual representations such as strip diagrams, number bonds, or the arrow way to solve one-step word problems.
- Materials support students in explaining that there can be multiple ways to solve problems and complete tasks. For example, Module 6, Lesson 4, Problem Set, directs students to show different arrangements of the same product in an array. In the Student Debrief, students explain their thinking when answering the question, "For Problem 3, what does the number of rows or columns represent? What does the number in each row or column represent? How does arranging the hearts into an array help you find the total more efficiently?"
- Materials support students in justifying that there can be multiple ways to solve problems and complete tasks. For example, Module 4, Lesson 11, "Exit Ticket," prompts students to agree or disagree with a representation of a subtraction problem within the question and justify their decision through an explanation. Module 5, Lesson 7, Concept Development, includes prompts for students to justify the different strategies they apply to addition problems and decide which strategy is more efficient.

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### **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, Module 3, Lesson 8, Concept Development, includes prompts for the students to discuss ways to count large numbers with the teacher by

alternating counting by ones, tens, and hundreds. The materials prompt students to turn and talk to a partner about friendly numbers in the different counting sequences. Module 2, Lesson 6, Student Debrief, prompts students to share with the group about the strategy they used to solve problems in the Problem Set. The materials include a list of questions to support student discussion about the lengths and line segments from their Problem Set with their partner and teacher. Module 3, Lesson 6, Application Problem, prompts students to discuss the following problem with a partner, "Billy found a briefcase full of money. He counted up 23 ten-dollar bills, 2 one hundred-dollar bills, and 4 one-dollar bills. How much money was in the briefcase?" Prompts for students direct them to express their solutions in unit form and expanded form.

- The materials support students' sense-making through doing math. For example, in Module 6, Lesson 5, Application Problem, the task prompts students to make sense of multiplication in the context of organizing greeting cards into an array. Module 7, Lesson 9, Application Problem, tasks students to evaluate if the exchange of coins for one dollar is a fair trade. In Module 5, Lesson 5, Application Problem, students apply math to a real-life context using number bonds or other strategies. The problem states, "Jenny had 39 collectible cards in her collection. Tammy gave her 36 more. How many collectible cards does Jenny have now?"
- The material supports students' sense-making through writing about math. For example, Module 4, Lesson 3, Exit Ticket, prompts students to explain how they used mental math to solve a problem. Module 5, Lesson 7, Problem Set, prompts students to "Explain which strategy you would use to solve and why."

## Productive Struggle

6.2	Facilitating Productive Struggle	10/10
6.2a	<a href="#">Materials support teachers in guiding students to share and reflect on their problem-solving approaches, including explanations, arguments, and justifications.</a>	6/6
6.2b	<a href="#">Materials offer prompts and guidance to assist teachers in providing explanatory feedback based on student responses and anticipated misconceptions.</a>	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 the teacher in guiding students to explain their problem-solving approaches. In Module 4, Lesson 5, "Student Debrief," the prompt for students asks, "How did you show your thinking...?" The materials include a Student Debrief in lessons to support teachers in guiding students to share and reflect on their problem-solving approach. Module 4, Lesson 19, Student Debrief, includes prompts for students to share the strategy they used to solve the problem and justify their strategy when they compare how they solved it differently than other students. Module 7, Lesson 12, Student Debrief provides the prompt, "Explain to your partner how you would think about the two parts that make a dollar as an addition problem. How would you think about it as a subtraction problem?" Module 5, Lesson 19, Student Debrief, includes support for the teacher to ask students to compare the two strategies used to solve subtraction problems. The *Bluebonnet Learning K-5 Math Program and Implementation Guide* describes the questions in the Student Debrief, stating, "The questions in the Student Debrief develop students' metacognition by helping them to make connections among parts of the lesson, concepts, strategies, and tools on their own." The Student Debrief questions guide the teacher to support students to appropriately name the learning including strategies, concepts, and tools.
- The materials support the teacher in guiding students to justify their problem-solving approaches. Module 2, Lesson 4, Student Debrief, prompts the teacher to ask students to defend their choice. Module 6, Lesson 5, "Application Problem," prompts students to draw a picture of the story and write a statement about their method. Module 4, Lesson 18, Concept Development provides the question prompt, "How many times did you rename or bundle?" when students justify their regrouping. The Student Debrief in Module 2, Lesson 8 provides the teacher with support to guide students in reflection on their problem-solving approaches. This includes providing explanations, making arguments, and offering justifications.

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## 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 related to 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 7, the anticipated misconception guidance for Topic E is that students will rely solely on numbers to compare measurements without taking into consideration the unit of measure. The teacher guidance offers suggestions for addressing that with examples of cats and dogs as units. For Topic B misconceptions, four teacher prompts are given. In Module 8, the bridge for students miscounting vertices could be counting the vertices by marking a dot on each one as it is counted. In Module 5, Topic B, misconception may include students omitting or recording the composition of a unit in a different place. The guidance suggests using the new groups below method to support the vertical form of numbers, showing their relationship by writing them closely together. For example, when adding a new unit of hundreds and two more tens, they see it as 12 tens, and digits are placed in sequence as they create the hundred (1, then 2).
- The materials include prompts to assist teachers in providing explanatory feedback based on anticipated misconceptions. For example, the *Course Guide* "Collaboratively Troubleshooting Student Misconceptions" example, provides a teacher-student dialogue based on a misconception for Module 1, Topic B, that teachers can use and adapt for other misconceptions. In addition, the Student Debrief in Module 1, Lesson 1, shows 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 Module 2, Lesson 10, "Notes on Multiple Means of Engagement" margin note suggests teachers check for understanding using the prompt, "Show me." To scaffold understanding for students, the materials guide the teacher to incorporate smaller addends in multi-step problems.
- The *Bluebonnet Learning 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 *Bluebonnet Learning K-5 Math Program and Implementation Guide* suggests using the *Course Guide* specific to the course of instruction.