Renaissance Learning, Inc.

Supplemental English Mathematics, 2

Freckle for Math, 2

MATERIAL TYPE	ISBN	FORMAT	ADAPTIVE/STATIC
Supplemental	**9798998577215**	**Digital**	**Adaptive**

Rating Overview

TEKS SCORE	TEKS BREAKOUTS ATTEMPTED	ERROR CORRECTIONS (IMRA Reviewers)	SUITABILITY NONCOMPLIANCE	SUITABILITY EXCELLENCE	PUBLIC FEEDBACK (COUNT)
86.05%	86	3	Flags Not in Report	Not Applicable	0

Quality Rubric Section

RUBRIC SECTION	RAW SCORE	PERCENTAGE
1. Intentional Instructional Design	12 out of 21	57%
2. Progress Monitoring	17 out of 23	74%
3. Supports for All Learners	22 out of 37	59%
4. Depth and Coherence of Key Concepts	16 out of 16	100%
5. Balance of Conceptual and Procedural Understanding	32 out of 38	84%
6. Productive Struggle	19 out of 19	100%

Breakdown by Suitability Noncompliance and Excellence Categories

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

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

IMRA Quality Report

1. Intentional Instructional Design

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

1.1 Course-Level Design

GUIDANCE	SCORE SUMMARY	RAW SCORE
1.1a	The materials do not include an alignment guide outlining the ELPS, or a rationale for learning paths across grade levels.	3/5
1.1b	All criteria for guidance met.	3/3
1.1c	All criteria for guidance met.	2/2
1.1d	Materials do not provide teachers with units or lessons.	0/2
1.1e	The materials do not include guidance for instructional leaders to support educators with implementing the materials as designed.	1/2
—	**TOTAL**	9/14

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

The instructional materials provide a structured and standards-based approach by outlining the Texas Essential Knowledge and Skills (TEKS), identifying the concepts covered, and offering a rationale for adaptive learning paths within the same grade level. The *Freckle* Teacher Dashboard includes a Standards tab where the TEKS are listed by strand and grade level, allowing teachers to locate and reference the standards easily. The materials also include a "Math Usage Recommendation" flyer that explains how the adaptive learning path adjusts based on student performance, supporting horizontal alignment by keeping students within their grade level while personalizing instruction. The materials do not include an alignment guide for the English Language Proficiency Standards (ELPS) or a rationale for how learning paths are designed to progress across grade levels (vertical alignment).

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

There are suggested weekly usage times for students listed on the Renaissance website, along with guidance for implementation of summer school that includes creating, preparing, and helping teachers. There is also correspondence for parents in English and Spanish.

Under the Resources dropdown, the Usage Recommendation describes recommendations for Mastery Practice, Number Sense & Fluency, and Real-World Problem Solving. Additionally, it provides guidance for minutes per day and frequency per week. The materials do not provide specific strategies for teacher use in various contexts.

Teachers select a math skill (TEKS) under the Standards tab. Next, Differentiated Practice provides teacher guidance with the "View Performance by Standards" report. Teachers use student performance data to assign Adaptive Practice. The "Skills & Prerequisites" allow teachers to assign prerequisite skills and teaching videos.

The materials provide guidance on the minutes students should spend on the program each week under the Resources tab and usage recommendations. There is also a prerequisite list that showcases supports to use for students. Additionally, teachers can find an article that can help educators plan out their year using a yearly implementation guide.

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

The adaptive materials include a diagnostic tool that assesses individual students' current math understanding, and recommends a starting point within specific skill progressions with a learning path aligned with the TEKS. The materials provide an explanation of the TEKS, and what student expectations are for each skill. For example, TEKS 2.10A—read bar graphs and pictographs—states, "the student is expected to explain the length of a bar in a bar graph." However, the materials do not provide a TEKS correlation guide.

Under Reports, there are diagnostic performance levels by group and individual skill assessments that are TEKS-based. When you click on a unit, there are specific TEKS that show what students are working on. Student starting levels can be viewed as a recommended entry point for the program.

Students complete diagnostic tests before entering the adaptive pathways. The diagnostic assessment data determines the recommended skill entry point for the student. Using reports, educators can manually view and adjust skill entry points, when needed, based on diagnostic assessment results and individual student needs.

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

The learning materials include Inquiry Based Lessons for teachers to use in whole class, centers, or mixed groups. Each lesson starts with an overview for the teacher and includes the standard, objective, slides, inquiry sheet, and answer sheet.

The materials do not provide clear steps or protocols for adaptive student lesson internalization. Instead, they offer a list of skills and prerequisites with sample questions and a printable. Instructional videos are offered as well to both the students during their adaptive learning and to teachers to support their understanding of the math skill.

G2 level includes an Inquiry Based Learning (IBL) that has printable worksheets, benchmark assessments, skills and prerequisites, and instructional videos. Materials also include a slide deck that showcases lessons to follow to teach students the particular TEKS they are working on.

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

The materials include math usage recommendations and Smart Start Help articles, which provide resources for instructional leaders to support educators with implementing the materials as designed. For example, the "Math Usage Recommendations" flyer outlines suggested usage by grade band, and the "Smart Start Help" articles include a 60-minute course with modules such as "What is Freckle?", platform tours, an implementation checklist, and a teacher's guide. Additionally, the Administrator Dashboard and Renaissance Next for Leaders provide tools to monitor student progress and performance across topics. The materials do not include guidance for instructional leaders to support educators with implementing the materials as designed. While tools such as the Administrator Dashboard offer data visibility, there is no evidence of structured guidance or protocols to help instructional leaders coach or support teachers in the implementation process.

1.2 Lesson-Level Design

GUIDANCE	SCORE SUMMARY	RAW SCORE
1.2a	This guidance is not applicable to the program.	N/A
1.2b	The materials do not provide evidence of ELPS alignment.	3/5
1.2c	Materials do not include information on how to support a student at home; the site states what they do have and where to find it, but it does not meet the measure of criteria.	0/2
—	**TOTAL**	3/7

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

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

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

The materials provide lesson overviews aligned to the TEKS for grade 2, including student learning objectives for each day of the lesson. Within the lesson are daily videos for the students to watch, questions for the teacher to ask, directions for the students and the teacher, along with suggested tasks, challenge tasks, reflection questions, group discussion guidelines, and sentence stems for students to use for group discussions.

The materials provide TEKS-aligned benchmark assessments that teachers can assign to students immediately or assign for the future. The teachers have an option of how many questions they want students to answer and can even test on multiple TEKS. Teachers can preview the assessment questions before assigning the assessments.

Within the Standards tab, teachers select a TEKS-aligned skill. The materials provide a TEKS-aligned Focus Skill and learning objective. For example, 2.7.A "Odd and even numbers up to 40," the learning objective states, "The student is expected to: determine whether a number up to 40 is even or odd using pairings of objects to represent the number."

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

The materials provide families with an overview of the product, how to use it, how students use it, and the activities students can practice in the adaptive program with an example of what the students see.

The materials inform families in both English and Spanish with the math focus skills according to state, with a video on how to understand and read the focus skills and how it progresses across grade levels. For example, families can click on grade 2, then click on a specific domain to read specific focus skills with a description and the standard code associated with it.

Language support is included for students to practice skills in their native language; however, there is no correspondence for families to support the progress of their student other than in English.

The Freckle Teacher Dashboard "Family Letter" introduces the product and explains how students can access it at home. It suggests that families have students work independently; however, it does not give suggestions on units or how families can support at home.

2. Progress Monitoring

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

2.1 Instructional Assessments

GUIDANCE	SCORE SUMMARY	RAW SCORE
2.1a	Materials do not provide definitions of formative and diagnostic assessments.	1/2
2.1b	Materials do not provide clear guidance for the consistent administration of assessments.	1/2
2.1c	Assessments do not provide calculators to support individual students, and there is not a way for teachers or students to enable or disable content and language supports.	2/4
2.1d	All criteria for guidance met.	4/4
2.1e	All criteria for guidance met.	4/4
—	**TOTAL**	12/16

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

The materials include a variety of assessments, such as pre-tests or placement tests, end-of-unit assessments, progress monitoring, and formative assessments that teachers can assign throughout the unit of study. A definition of the benchmark assessment states, "assess students' progress on specific standards to check for understanding and measure growth over time." The placement tests are taken at the beginning of the year in each math domain, which provides the student and the teacher with a current student performance level. From there, students' Adaptive Math practice is aligned at that domain level.

Assessment reports show math levels, student progress, class grouping, and other report indicators. The assessment report includes the type of assessment, the domains, standards, and questions for each assessment.

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

The materials provide benchmark assessment guidance to ensure accurate administration by stating that the assessments are for "specific standards to check for understanding and measure growth over time."

Teachers can directly assign assessments and preview the questions students will answer. Teachers choose TEKS and/or skills to include; however, the materials do not provide directions, procedures, or a script for teachers to follow to ensure consistent administration of instructional assessments.

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

Assessments can be given in a printable version or on the online platform. The digital assessments provide educators with a printable version with space for students to write, a Spanish version of the test, and an answer key.

The digital assessments provide text-to-speech accommodations that students can turn on by selecting the speaker icon. The assessments include content and language supports; for example, underlined academic words are selectable for students to hear and see the definition. Assessments do not provide calculators to support individual students, and teachers cannot enable or disable content and language supports.

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

The *Freckle Math Practice Program* includes diagnostic assessments with TEKS-aligned tasks and questions that incorporate multiple interactive item types and span varying levels of cognitive demand. Students engage with formats such as multiple choice, drag-and-drop, text entry, multiselect, and open-ended responses, which appear throughout the Targeted Practice section and Depth of Knowledge (DOK) Challenges. These assessments allow students to demonstrate understanding through more than two unique item types and reflect more than two levels of complexity. The Adaptive Math pathway functions as a diagnostic tool, adjusting in real time to identify mastery and learning gaps. This adaptive feature delivers differentiated, TEKS-aligned instruction and ensures students are assessed at appropriate levels of challenge. Teachers can preview and customize diagnostic items to tailor instruction and address student needs. The materials clearly describe how students interact with content and how teachers manage assessments, supporting instructional decision-making and aligning fully with the expectations of this indicator.

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

Formative assessment questions include multiple choice, yes-or-no questions with a prompt that states, "more information is needed," and text-entry.

The questions and tasks of the formative assessments include varying levels of complexity, which range from basic recall to application, and higher-order skills, such as strategic thinking and evaluating. For example, TEKS 2.7A, which covers odd and even numbers up to 40, includes questions that ask students to identify if a number is odd or even, count objects on the screen and determine if that number can be divided evenly, pick a number that can be divided evenly, and select two numbers that are even.

Teachers can choose a topic by grade level and select the domain, adjust the number of questions, the type, and the question level before assigning.

2.2 Data Analysis and Progress Monitoring

GUIDANCE	SCORE SUMMARY	RAW SCORE
2.2a	Materials do not provide a rationale for the incorrect and correct answers.	1/3
2.2b	Materials provide guidance for the use of included tasks and activities to respond to student trends in performance on assessments. Materials include assessments and activities, and provide guidance on how to use the results to adjust instruction to respond to student trends.	1/1
2.2c	All criteria for guidance met.	2/2
2.2d	This guidance is not applicable to the program.	N/A
2.2e	All criteria for guidance met.	1/1
—	**TOTAL**	5/7

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

The assessments include scoring guides that show how students performed on each question, the correct answer, and how the students answered. The scoring guide provides correct and incorrect responses but does not provide a rationale for each one.

The report provides specific scoring information for the teacher and a detailed breakdown of student performance. It gives scoring results by topic or TEKS and domain with percentages broken down into three scoring groups: greater than 79 percent, between 50–79 percent, and less than 50 percent. The report shows students' answers; however, it does not include a rationale for why the question was correct or incorrect.

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

Materials in Math Content, under the Adaptive Math pathway, offer educators guidance on implementing activities and addressing student performance on assessments. In this pathway, students first complete a pretest to determine their current proficiency levels, then engage in activities that adapt to their individual learning needs and progress. This approach supports targeted instruction and differentiated practice.

Materials in the Home Page > Reports > What data can I see on the Class Grouping report? provide educators with guidance on forming small groups based on students' progress within specific domains at their selected grade level. Class Grouping reports offer recommendations on which domain topics to address in small group instruction or independent practice, including guidance specifically for their grade level in Freckle.

From materials in the Home Page >Teacher Dashboard > Performance by Topic report provide educators with the opportunity to review report findings and identify patterns in student performance. For example, educators can examine frequently missed TEKS and receive guidance on assigning targeted tasks and resources to address those identified learning gaps.

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

The materials include a Reports dashboard for educators that automatically compiles student assessment, progress, and growth data into a variety of different reports, such as graphs, tables, charts, and groupings. Teachers are equipped with assessment tools to monitor student growth and progress. Teachers can adjust student activities and interventions based on performance.

Reports are provided to view how students have performed over time. Teachers can monitor student growth through the automatic reports that show trends in individual and class data. Teachers can go to the Reports tab to access reports that showcase student skill level, growth, domains, and the TEKS still needed to master.

Online student platforms include personalized dashboards where students can select My Tracker to see their progress on items completed, such as assessments, targeted practice, adaptive practice, and DOK lessons. The tracker shows students' progress towards mastery in a bar organized by colors (green, yellow, and red), with a percentage, encouraging words like "Keep practicing," "Good job!," and "Mastery," and includes an option for students to retry that specific task.

Students can access their growth and progress and track where they started, their current level, their levels grown, and the number of correct answers to date. The student tracker allows students to track their progress and growth. Students can go into their backpack, click on the Report Card, and see how they have grown in each domain.

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

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

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

When completing a task during the adaptive practice, students receive immediate feedback when struggling with a question that helps guide them to the correct answer. Students can access tools, hints, and video guidance to help them along the way. Once they master the skill, it moves them to the next level based on their prior performance.

Students receive immediate feedback when answering a question from their assignment. Students can then see which questions they answered correctly and incorrectly. If an answer is incorrect, the program immediately provides a hint to help them retry the question. Students are given two more attempts to get the answer correct. Students can also select options such as Teach Me, Hint, or to view a video to address any issues they may encounter when completing assignments.

The materials provide continuous feedback to students and adjust the difficulty of tasks as students progress through their pathway. For example, in the skill "10 More or 10 Less up to 1,200," when students are struggling, the adaptive pathway adjusts the learning to identifying 10 more or less to a smaller number, such as 8, for mastery, and will build towards numbers up to 1,200 after students have shown mastery of identifying 10 more or less with numbers smaller than 80 on multiple attempts.

3. Supports for All Learners

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

3.1 Differentiation and Scaffolds

GUIDANCE	SCORE SUMMARY	RAW SCORE
3.1a	All criteria for guidance met.	1/1
3.1b	Materials do not include explicit educator guidance for language supports, including pre-teaching, for developing academic vocabulary and unfamiliar references in text.	1/4
3.1c	All criteria for guidance met.	2/2
3.1d	Materials do not include content and language supports, and calculators that educators can enable or disable to support individual students.	1/3
3.1e	All criteria for guidance met.	2/2
—	**TOTAL**	7/12

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

The online program uses adaptive learning that provides students with content, practice problems, and feedback based on their current level of understanding. If a student is struggling with a particular concept or skill, the program provides a series of hints, videos, and extra practice either individually or with help from the program targeting that concept or skill. For example, in the domain of Algebraic Reasoning, the adaptive materials provide immediate feedback to the student of correct or incorrect response and then provide a hint to the student to "add or subtract 1 in the tens place in the number" to help calculate their two-digit addition problem. If the student continues to struggle with the skill, the program guides the student to "Try again or work together." The "work together" option guides the students with a prerequisite skill first and offers them several practice tasks before returning to the original problem.

Students can utilize the scaffolding features integrated within the adaptive program to support their mastery of the subject matter. Renaissance offers support articles that detail the instructional supports embedded within the program. These resources provide guidance on how to use the programs' built-in features.

When students are struggling with a concept and get questions wrong, there are videos provided to help scaffold student learning. Teachers can assign or show the prerequisite videos based on the TEKS to help scaffold for students. In Math Topics, the teacher can choose a particular TEKS, then scroll down to the Skills and prerequisites. It allows teachers to generate a printable for practice and assign extra skill practice.

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

The program does not provide guidance for pre-teaching vocabulary or unfamiliar references; however, embedded academic vocabulary support through hover-over definitions is included. Real-time hints are provided for students in supporting new academic vocabulary. For example, students can hover over specific words that are underlined, such as *represented*, *corners*, and *hexagon* to see and hear the definition. Unfamiliar references appear in the materials without educator guidance to support student understanding.

Renaissance offers support articles that detail the instructional supports embedded within the program. These resources provide guidance on how to use the program's built-in features.

In the student online dashboard, students have embedded supports such as the Help feature.

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

The online platform provides educators with an option for extended thinking using the DOK content that assigns higher-level thinking questions for a specific standard to help students master concepts. The educator dashboard does not provide specific guidance on when and why to use this option. Instead, it gives educators the option to assign the task immediately or for the future. The materials adapt to students' learning by providing more difficult questions without any specific instructions or guidance to educators for using them with advanced learners.

Renaissance suggests guidance on how Freckle can be used for enrichment and how to keep students engaged with enrichment activities.

A PDF on usage recommendations for DOK and IBLs is provided. The materials provide options for students to demonstrate understanding through IBL slides and projects. These tasks allow students to perform by engaging in hands-on problem solving, express by generating and responding to questions, and represent their thinking using visual tools, such as graphs and diagrams.

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

Digital materials allow educators to enable or disable text-to-speech functionality for individual students. The materials do not provide the ability for educators to enable or disable content and language supports for individual students, and the use of calculators is not provided.

Teachers can adjust text-to-speech settings individually for each student and change a student's language setting. Teachers cannot assign specific or targeted language supports. The embedded supports (hints, hover-over academic vocabulary) are embedded within the program's adaptive framework .

The audio settings allow the teacher to choose the program to read text aloud to students automatically. The student support settings allow teachers to assign text-to-speech and additional time to shop in the Freckle store.

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

Online adaptive materials provide students with tools like an interactive pen, a blank number line, manipulatives, a ten frame, a graph, and place value chips for students to use while solving problems. Educators do not have access to see what tools students used to demonstrate their understanding of mathematical concepts in a variety of ways.

The materials in the IBLs allow students to demonstrate mathematical concepts through answering questions verbally, solving mental math problems multiple ways, and drawing pictures of their math understanding on an inquiry sheet through slides and projects. These tasks allow students to perform by engaging in hands-on problem solving, express by generating and responding to questions, and represent their thinking using visual tools, such as graphs and diagrams.

Students can engage with content throughout the adaptive program, and educators can choose a grade level and topic to assign a benchmark assignment for students. However, there is no available guidance for teachers on how students can demonstrate understanding of mathematical content through modalities such as performing, expressing, and representing.

3.2 Instructional Methods

GUIDANCE	SCORE SUMMARY	RAW SCORE
3.2a	All criteria for guidance met.	5/5
3.2b	This guidance is not applicable to the program.	N/A
3.2c	All criteria for guidance met.	3/3
3.2d	All criteria for guidance met.	2/2
3.2e	All criteria for guidance met.	2/2
—	**TOTAL**	12/12

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

The online program provides students with questions on specific math concepts. Teachers are provided guidance on building knowledge by activating prior understanding, highlighting big ideas, making key patterns and relationships explicit, and using varied representations to support learning.

Teachers can use the targeted skills and prerequisites to activate prior knowledge. The materials provide usage recommendations on how often students should engage with the program.

In grade 2, the online program includes IBLs for teachers to use with small groups that include a simple script and questions to guide the lesson, along with printable worksheets for students to complete independently after the lesson. The lessons begin with questions from previous learning, such as asking students to subtract a two-digit number from a one-digit number.

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

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

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

There are reports that provide student performance (Math Levels) and suggested groupings (Class Grouping). The Class Grouping report recommends student groups based on students' progress on specific skills. Educators can choose groups with varied performance levels or groups of the same level. Group size can be whole group, small group, or individual.

Instructional videos are triggered when students answer incorrectly. Freckle automatically shows a hint or video to support understanding and encourages students to watch the videos during independent practice. The videos provide students with targeted intervention and tell teachers when to use them.

The Adaptive Math pathway offers varied practice opportunities educators can support with whole-group instruction using printable exit tickets, which include a choice of 3–10 questions focused on a specific skill or concept.

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

In grade 2, the online materials include IBLs and DOK activities for teachers to assign or have students participate in that allow for higher-level thinking and critical thinking through fun, real-world challenges. Both methods provide enrichment and extension for students. For example, using the TEKS 2.2D—"Compare Two Three-Digit Numbers," the question asks students if they can determine which number is bigger if only the hundreds place is shown, and the next question shows numbers with only the tens place shown.

The program provides students with enrichment activities by practicing various skills and concepts. Students can use the Adaptive Math pathway, which provides opportunities for enrichment and extension based on their performance. Teachers can utilize the DOK questions and print out skill-based worksheets as extension activities for students.

DOK activities, such as 2.10B—"Draw Pictographs & Bar Graphs," provide extra enrichment for students by relating content to their everyday lives.

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

When students answer incorrectly on their adaptive pathway, the program provides immediate feedback through a hint or the "work together" option. When a student answers correctly, the online program provides a response to the student that says, "That's correct!," and a score of "Mastery" at the end of the lesson.

The IBL slide decks include prompts for teachers to ask students to check for understanding.

Materials under the Teacher Home Guide, in the Help Articles, offer guidance to support educators in providing timely feedback during lesson delivery. For instance, Freckle provides teachers with resources to monitor student progress and performance, along with helping teachers decide what to do with data. Teachers have the opportunity to isolate whether each standard needs a whole-group reteach (most students fall under 50 percent) or a small-group reteach (small group of students fall under 50 percent).

3.3 Support for Emergent Bilingual Students

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

GUIDANCE	SCORE SUMMARY	RAW SCORE
3.3a	This guidance is not applicable to the program.	N/A
3.3b	Materials did not include embedded linguistic accommodations for all levels of language proficiency.	0/4
3.3c	Materials do not include implementation guidance to support educators in effectively using the materials in state-approved bilingual/ESL programs.	0/1
3.3d	Materials do not include embedded guidance to support emergent bilingual students in developing academic vocabulary or making cross-linguistic connections through oral or written discourse opportunities, nor in building background knowledge through written discourse.	3/8
3.3e	This guidance is not applicable to the program.	N/A
—	**TOTAL**	3/13

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

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

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

The adaptive materials define some vocabulary terms but do not include visual representations to support students who struggle to understand without concrete representation. The online student app does provide vocabulary guidance for some words, i.e., bolded words include hover-over definitions. However, this feature is not consistent on all questions and is not available at all levels.

The online pathway includes hints when a student answers incorrectly. Some of the hints provide pictures or a representation such as a picture that shows the meaning of the equal sign. However, not all

hints provide visuals. If students answer correctly, they do not see the hints unless they click on the hint bubble in their Adaptive Math pathway.

The materials do not provide pre-teaching of math academic vocabulary. For example, the question for the TEKS 2.6B states "Kaitlin divides her collection of 18 marbles into 3 even groups. How many marbles are in each group?" Students type in the correct answer without having an understanding of what the word *divides* means or an option for a hint that defines the word. The hints provided with the question models how to divide using blocks but does not make the connection to the word *divides* or *division*.

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

The materials do not include implementation guidance to support educators in using the program within state-approved bilingual or English as a Second Language (ESL) settings. While the teacher dashboard allows Spanish language settings and printable materials in English and Spanish, these features are not supported by instructional strategies or guidance aligned to bilingual or ESL models.

There is no evidence of embedded support, such as language objectives, model-specific plans, or professional learning resources tailored to bilingual or ESL instruction.

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

The materials provide daily videos in the IBLs that educators can use in a small group. The videos include familiar pictures along with unfamiliar words such as *strawberry pie*, *rectangular table*, and *circular table* to help provide an understanding of some words. The educator's directions before playing the video state, "Play two times and ask clarifying questions in between," without specific suggestions or questions for educators to use.

In the IBLs, the materials provide educators with specific questions to ask to clarify the purpose of the activity, to determine what information from the video is important, and some reflection questions, all for students to answer orally. During this lesson, students are put into small groups and are working together to complete the task. The materials provide sentence stems for the class to use after each group presents their solution, such as "I agree with ___ because" and "I solved it differently than ___ because ____."

In the IBLs, there are slide shows with questions for teachers to ask students orally that help increase student comprehension. Student comprehension is also encouraged through written discourse. Students are expected to reflect on the knowledge they gained through the inquiry by answering questions like, "What was the most difficult part of today's inquiry? What did you or your group do best during today's inquiry? If you could start over, what would you do differently?"

Students use the inquiry sheets to write down the questions they are trying to answer during the lesson. The materials provide educators with suggested questions to display for students to copy on their paper, if needed, and opportunities for students to answer questions verbally through daily review questions and videos. On their inquiry sheets, they are asked to answer, "Developing the Question: What are we trying to answer?"

The materials do not include embedded guidance to support emergent bilingual students in developing academic vocabulary or making cross-linguistic connections through oral or written discourse opportunities.

The materials do not include embedded guidance to support emergent bilingual students in building background knowledge through written discourse.

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

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

4. Depth and Coherence of Key Concepts

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

4.1 Depth of Key Concepts

GUIDANCE	SCORE SUMMARY	RAW SCORE
4.1a	All criteria for guidance met.	2/2
4.1b	All criteria for guidance met.	4/4
—	**TOTAL**	6/6

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

In grade 2, digital practice questions provide multiple opportunities for students to understand the concept. For example, TEKS 2.9G "Tell time with a.m. and p.m." prompts students to choose the clock that reads a specific time; choose a clock that shows a time after 3:30; and after reading a simple story of someone getting ready at a particular time, choose the correct time with the a.m. or p.m. When a student answers incorrectly, a hint is provided in the form of an analog clock and an explanation of how to read the clock with an alternate time. The hint provides the correct time with the practice clocks and then asks if students can try the question again. If students answer two questions in a row incorrectly, the digital platform asks the students if they "want to work on one together." Once the student clicks on "yes," the digital practice shows an analog clock with just the hour hand, and guides students through reading the hour hand first; then shows just the minute hand with guidance on how to read the minute hand of a clock; and finally adds the hour and minute hand back on the clock, and then has students pick the correct time.

The benchmark assessment of the TEKS 2.9G "Tell time with a.m. and p.m." prompts students to read a clock, pick the clock that reads the same time, and answer questions that involve a story of a student getting ready for something during a particular time of the day. The students choose the correct written time with either a.m. or p.m. The questions assess students' depth of understanding aligned with the TEKS 2.9G.

The Adaptive Math pathway allows students to work on TEKS to their ability and adjusts to student mastery or help needed as they move through the pathway.

Students can use the Teach Me button on their app and practice multiple times before continuing on their path. They can also use Teach Me to better understand the content before continuing on their path.

Exit tickets and mini-tickets are TEKS aligned and include quick checks of understanding, covering topics such as identifying fractional parts, data analysis, counting collections of coins, and problem solving. The program provides students with support and scaffolds when they get a problem incorrect.

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

Rigorous inquiry based assignments provide students with enrichment opportunities, which lead to a deeper understanding of the TEKS. Several are cross-curricular and require in-depth thinking, in which students use problem-solving skills.

Teachers can assign targeted, depth-of-knowledge questions and tasks for students to demonstrate proficiency of the TEKS. Other grade-level TEKS may be assigned to increase the rigor, to differentiate for students, and to provide more opportunities to practice skills at a higher level of knowledge.

Students can select the From My Teacher tab on the app. From there, they can access IBLs that the teacher has specifically formulated for them based on the TEKS. Generating IBLs allows for the extension of skills to be practiced.

Teachers can assign a DOK Challenge practice for students to enrich and extend their thinking in a specific TEKS. For example, in grade 2, for the TEKS 2.2D "Comparing three-digit numbers," the task uses real-life problems to have the students justify why one three-digit number is greater than another using their understanding of place value.

4.2 Coherence of Key Concepts

GUIDANCE	SCORE SUMMARY	RAW SCORE
4.2a	All criteria for guidance met.	1/1
4.2b	All criteria for guidance met.	1/1
4.2c	All criteria for guidance met.	4/4
—	**TOTAL**	6/6

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

Grade 2 materials introduce the concept of "Odd and Even Numbers up to 40" as a foundation for addition and subtraction with word problems. The online materials provide students and teachers with instructional videos that reinforce prior learning of that skill. For example, for the TEK 2.7A "Odd and Even Numbers up to 40," the instructional videos include instructions on how to split cubes into two equal groups, reinforcing the concept that even numbers can be split evenly.

In second grade, students revisit place value to prepare for comparing and ordering numbers. Big ideas and mathematical relationships are revisited as needed throughout the program. Teachers can choose a standard and show students prerequisite videos that can be used as a review and a scaffold for future learning.

Teachers can utilize the prerequisite skills videos to spiral previous learning and build upon it for new learning. Teachers can also assign adaptive lessons to enhance understanding of specific selected TEKS. Teachers can see how lessons are composed and progress throughout the questions to showcase different understandings of the content.

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

Grade 2 materials use place value chips to compare three-digit numbers using symbols. Grade 1 uses place value chips to add and subtract. The online student platform includes Number Facts and Number Basics for grades K–2 to help reinforce the basic foundations of math, which include counting, number recognition, and basic arithmetic practice with visual and audio supports.

The prerequisite skills show alignment across grade bands using the foundational skills students must master in grade 1 to be successful in grade 2. Teachers can filter out foundational skills required for later grade levels, demonstrating the coherence across grade bands.

In the targeted DOK questions, concepts build upon one another and connect. It connects larger math ideas by requiring students to use problem-solving skills to answer the questions. For example, in grade

2, students can practice 2.10.D—"Draw Conclusions from a Graph." The materials include an instructional video that covers skills and prerequisite skills necessary for students to achieve success and reach mastery. Through the use of prerequisite skills, it becomes evident how concepts are related and connected.

Teachers can see how units are composed and the grade levels in which the content will be shown. They can assign lessons based on DOK and build across grade levels. Students can practice skills across grade levels as they progress through the standards-based practice.

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

In grade 2, students use the IBLs to review the addition of three two-digit numbers from grade 1 and then move into the addition of four two-digit numbers. For example, Day 1 lesson asks the students to explain their strategies for adding the three numbers together, and Day 2 moves to finding the missing addend when given a sum. Then, the Day 3 lesson teaches addition up to four-digit numbers. The IBL on sea turtle hatchlings builds in complexity. On Day 1, students solve one-step addition problems within 100. On Day 2, they solve one-step subtraction problems within 100. By Day 3, students solve one- and two-step addition and subtraction problems within 100.

In grade 2, the targeted DOK practice for 2.3B—"Fractions of a Whole"—builds in complexity. It begins by having students partition a shape into halves, then identify fourths, and finally use fractions to problem-solve a real-world scenario.

Teachers can assign focus skills designed to demonstrate coherence across assigned conceptual lessons and activities. The online materials asterisk and bold the TEKS that are the Focus Skills in each grade level. The materials identify focus skills as "the most critical skills to learn at each grade level because these serve as a foundation for skills taught in later grades."

Students in grades K–2 can access Fact Practice from their dashboard, which includes procedural fluency with addition, subtraction, multiplication, and division. The students can practice this task twice a week.

Teachers can assign targeted skills and practice to students so that they can practice skills in sequence. Teachers can build strong content knowledge by providing the prerequisite videos that are available on the topics being covered. Teachers can extend concepts by assigning DOK assignments to students on selected content.

4.3 Coherence and Variety of Practice

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

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

Grade 2 students learn how to model numbers up to 1,200 using concrete and pictorial models to compose and decompose numbers. As students progress through the learning pathway, spiral review questions integrate this skill into generating a number that is more or less than a given number up to 1,200. The materials use place value chips to compare three-digit numbers using symbols and to identify odd and even numbers up to 40.

Students progress through concepts and skills at the basic level. After some time, the skill begins to add additional concepts for students to practice. Students are given multiple opportunities to practice skills when they are incorrect at least two times. Students can use the video, hint, Teach me, and tools. When students unsuccessfully answer a question, the program prompts them to "try again" or "work together."

When students have multiple failed attempts at answering or solving a problem, a video is provided to help scaffold their learning. The videos help revisit previously learned concepts that can scaffold learning for students.

The grade 2 student dashboard gives students access to hints in the Teach me section. This allows students to receive a hint to assist with the retrieval of a previously learned concept. Students can select from Number Basics, Number Facts, or Fact Practice to review previous concepts and continue to build on basic math fundamentals.

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

In the grade 2 data analysis learning pathway, students use a previously learned skill of solving addition problems with an unknown to answer a question on a bar graph. Each student's skill provides a required prerequisite skill before learning the current skill. The learning pathway allows students to reiterate subsequent learning with increasing rigor.

The grade 2 adaptive materials provide students with multiple strategies for adding and subtracting. As students work through their pathway, the program adapts and prompts students to select the most efficient addition strategy. The adaptive pathway allows students to continue building on previously

learned concepts. Students can solve different problems through targeted skills practice or DOK practice assigned by the teacher.

The grade 2 Targeted Practice for 2.4B "Add up to 4 2-digit numbers" provides students with several strategies, such as place value blocks and chunking two numbers together before adding them.

5. Balance of Conceptual and Procedural Understanding

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

5.1 Development of Conceptual Understanding

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

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

Students are given opportunities to interpret, analyze, and evaluate models and representations. As they progress through each level, students have to apply prior knowledge and critical thinking skills from previous lessons. Teachers can assign DOK assignments based on different TEKS as needed, as well as Targeted Math Practice lessons that provide additional activities for students to interpret, analyze, and evaluate.

In grade 2, using TEK 2.10A "Read Bar Graphs and Pictographs" the students are given a variety of pictographs and bar graphs and are to use the graphs to interpret, analyze, and evaluate the information to answer questions. Using the targeted DOK practice with TEK 2.9D "Measure an Object" students use models to evaluate why one measurement tool is a better option than another.

In grade 2, 2.10B "Draw Pictographs & Bar Graphs" targeted DOK question 4, students are asked to analyze and evaluate a graph and find two statements to describe the data. In grade 2, 2.8A "Draw a Shape with Given Attributes" Question 4, students are asked to evaluate a group of buttons and decide how many groups there would be if they were sorted by shape.

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

The teacher is able to provide printed activities that include pictorial models. Students have printed materials that depict pictorial representations, and there is correspondence or guidance for students to use physical manipulatives.

The student's online dashboard has multiple representations of mathematical situations that show different pictorial models. The DOK questions also showcase different pictorial models based on the same TEK, which can be printed.

In G2, using the TEK 2.4B "Add up to Four Two-digit Numbers" students are given a printable inquiry sheet on which they can draw pictures or use strategies to solve the problems. Questions and tasks provide models in the adaptive program for the students, and include opportunities for students to create concrete models of a concept or a mathematical situation.

In G2, students create pictorial representations of the area of chocolate bars in the "Confection Candies Chocolate Company" IBL. In G2, students create pictorial representations of graphs in the "Life as an Animal Scientist" IBL.

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

Student applications begin with abstract concepts; as students answer questions correctly, the concepts become more concrete. Teachers can assign targeted practice skills to aid in developing a foundation for real-world applications. As students progress, they can be assigned skills to make connections across concepts.

Teachers can assign DOK assignments, as well as Targeted Math Practice lessons, based on the different TEKS as needed, which will allow students opportunities to understand new problems and contexts.

In grade 2, students apply their knowledge of the TEK 2.9C "Lengths on a Number Line" using an example of a toy company producing toy cars during the week. The questions ask the students to determine which number line matches a number sentence, which number line shows the correct way to solve an addition problem, and finally asks the students to justify a strategy on a number line. Students apply their knowledge of the TEK 2.10B "Draw Pictographs and Bar Graphs" using a real-world example of how an animal scientist would use graphs in their jobs. Students first identify key parts of various graphs, create graphs with classmates, complete a project by asking a statistical question to their class, and finally, display the data using a bar graph and a pictograph.

In grade 2, for the IBL "Importing and Exporting Goods," students add up to four two-digit numbers while learning about imports, exports, and trading with other nations. For the TEKS 2.9E "Problems Involving Lengths" students are asked to fix incorrect details in a friend's story, which is connected to the math and a situation that students could encounter in their daily lives.

5.2 Development of Fluency

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.2a	All criteria for guidance met.	2/2
5.2b	All criteria for guidance met.	3/3
5.2c	All criteria for guidance met.	3/3
5.2d	All criteria for guidance met.	1/1
—	**TOTAL**	9/9

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

The Fact Practice activity tests grade 2 students' automaticity with addition and subtraction number facts. Educators can build fluency for students with personalized Fact Practice for all individual students across all operations.

The Number Facts activity allows grade 2 students to practice basic arithmetic in a variety of levels with audio and visual supports, making learning more engaging and effective. As students progress through the levels, the arithmetic starts with simple and concrete visuals and then progresses to complex without visuals. For example, level 9 starts with addition and subtraction within 10 and then progresses to vertical subtraction within 20. The levels help students with fluency as the arithmetic problems use a combination of horizontal, vertical, pictures, ten frames, and no pictures.

Number Fact Practice can be assigned to students where they practice building fact fluency with addition and subtraction. Teachers can assign number facts to build automaticity in number recognition. Students can use math practice to increase fluency and automaticity in math facts, help build their numeracy skills, and help with building automaticity of addition and subtraction.

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

In grade 2, students add and subtract ten more or less using multiple strategies like objects, ten frames, pictures, and then progressing to horizontal and vertical formats without pictures or objects. The Number Facts and Fact Practice activities provide opportunities for students to use flexible and efficient strategies to solve the addition and subtraction problems. For example, in Number Facts, students use a variety of strategies to solve addition and subtraction within 20, and in Fact Practice, students use mental math to solve twenty-four addition and subtraction problems.

The Number Facts practice is adaptive and moves at the pace of the student. Students have the opportunity to practice efficient, flexible, and accurate math procedures. math procedures. For example, students are building fluency with subtraction up to 20.

Through the adaptive pathway, students in grade 2 practice skills, and when errors are made, they are provided with immediate feedback. Students are able to practice different strategies within the skills for flexible procedure and accuracy, have the opportunity to practice mathematical procedures, and gain knowledge or feedback based on students' answer choices.

Teachers can utilize printable materials in order to ensure students have the opportunity to practice their efficient, flexible, and accurate math procedures.

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

In grade 2, during a DOK Challenge, students answer the online question, "If Nick adds up the tires he changed on Monday, Tuesday, Wednesday, and Thursday, how many tens will be in the sum?" Students evaluate accuracy by adding up the four two-digit numbers to find the correct answer for how many tens are in that number. Another question asks students to evaluate for flexibility by asking: "Nick wants to make a quick estimate of how many tires he has changed this week. Which would be a good strategy for him to use?" Students select another strategy for estimation.

In grade 2, during a DOK Challenge, students answer the question, "Nick's friend Maya has a trick that she uses for adding numbers. She says, 'Look at the numbers for Monday and Wednesday. There is a way to make 21 + 19 simpler.' Which of these could be her trick?" Students then choose the most efficient strategy.

Grade 2 explores math standards and builds critical thinking skills through inquiry-based lessons. Students can watch instructional videos along with an inquiry sheet. Teachers can utilize printable materials, enabling students to utilize and refine their problem-solving methods and ensuring students have the opportunity to practice their efficient, flexible, and accurate math procedures. Printable materials are available for DOK and IBLs.

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

The materials scaffold strategies for solving problems in a way that encourages students to select increasingly more efficient approaches. For example, the materials in grade 2 have opportunities and present less efficient strategies. The materials include scaffolding strategies to guide students in selecting increasingly efficient approaches to problem-solving in math.

Teachers are provided with suggested articles for implementation and getting-started basics. Instructional supports are embedded into the program.

The usage recommendations give a guide on how often students should use the program. The teacher brochure says, "Learn how Freckle can help you differentiate teaching and practice for every student" and provides guidance on how to support students in selecting increasingly efficient approaches for solving.

5.3 Balance of Conceptual Understanding and Procedural Fluency

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.3a	Materials do not explicitly state how the conceptual and procedural emphases of the TEKS are addressed.	0/2
5.3b	All criteria for guidance met.	3/3
5.3c	All criteria for guidance met.	5/6
—	**TOTAL**	8/11

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

The materials organize the TEKS and corresponding skills into larger groups called domains. For example, the Algebraic Reasoning domain includes TEKS K.5, and the Data Analysis domain includes TEKS K.8A and K.8C. Some domains connect with similar domains in middle school, and the adaptive program will automatically suggest "the appropriate connected domain for students" who need a challenge or remedial content. A Renaissance Support Chat Box in the Help Center states, "Freckle addressed conceptual and procedural TEKS by grouping related standards into domains." However, the materials do not explicitly state how the conceptual and procedural emphasis of the TEKS is addressed.

A Help article titled, "What content and topics does Freckle cover in Math Practice?" states, "Number Basics cover foundational math skills and Number Facts cover practice in conceptual understandings of addition and subtraction." The materials do not explain why or how the conceptual understandings support the procedural emphasis of the TEKS.

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

Students have the option to use online math tools during their adaptive pathway learning such as place value chips, empty ten frames, cubes, circles, empty number lines, place value line holders for students to write the values on, and empty graphs that promote both concrete and abstract models. Students can use the drawing option on their adaptive pathway to solve math questions. For example, in grade 2, students can use the drawing pen to draw a pictorial representation to show their thinking of how many paper towels are in four boxes if each box contains six paper towels.

The DOK questions allows students to see pictorial and abstract models to help solve problems. Students have the option to utilize tools as concrete models in their adaptive pathways and are shown various pictorial and abstract models as well.

The materials in the targeted DOK practice for grade 2 provide practice by allowing students to use more abstract strategies to break down numbers to make them easier to add in TEKS 2.4B.

Online manipulative tools such as place value disks are available for students to use.

In grade 2, DOK practice for TEKS 2.9.C, students solve problems using a pictorial representation of a number line and abstract models of addition and subtraction sentences.

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

Materials do not include supports for students in defining and explaining concrete models to abstract concepts.

The materials provide prerequisite skills videos that connect concrete and representational models to abstract concepts. For example, for the TEKS 2.2D "Compare Two Three-Digit Numbers Using Symbols" the videos show a simple comparison problem using the numbers eight and six on a number line and show that one is farther along on the number line, which means it is the greater number. Another video shows how to compare numbers by looking at the tens place value first to see which one is greater by using place value chips. An additional video shows how to write the number 256 on a place value chart to model how many hundreds are in the number.

The Help article, "How and when should I get started with Freckle for the first time?—Sample Script-Introducing Freckle to Students" states, "While you are working on Freckle, there are times where you might get stuck and have difficulty answering a problem. Do not worry, that is to be expected. The program has lots of different tools that you can use to help you figure out how to solve the problem so you can move on to the next level." Students can use online math tools during adaptive learning, including place value chips, ten frames, cubes, circles, number lines, graphs, and a drawing pen to create and connect concrete, pictorial, and abstract models.

In the IBL, "Creating Museum Exhibits—Compare two three-digit numbers using symbols," students use their college degree in zoology to design exhibits for the Smithsonian Museum by comparing multi-digit numbers, and explain representational models to abstract algorithmic concepts. The materials direct students to solve and record all work as a picture or any other strategy on their inquiry sheet. Next, students share their inquiry sheet to explain their solution with the class.

5.4 Development of Academic Mathematical Language

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

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

Students can utilize visuals and manipulatives in their online learning pathway. Help options provide a deeper understanding of mathematical vocabulary that may be difficult to grasp. Students are given multiple questions on the same topic that allow them to expand academic mathematical language with visuals and manipulatives. The adaptive pathway provides students with virtual manipulatives, vocabulary assistance, and visual models to strengthen articulation of math reasoning.

Mathematical language and comparative terms are developed through the adaptive pathway when students explore the words *deposit* and *withdrawal*. Students can click on the Hint button, and an instructional video shows students using drawings and symbols that the word deposit means putting "money into your account, and you will have more money at the end." The word withdrawal means "you take money out of your account, and you will have less money in your account at the end." From there, students can drag and drop money amounts into a deposit box and a withdrawal box.

In grade 2, students explore the words saving and spending in the online pathway. Students can click on the Hint button, and an instructional video shows students using drawings and symbols that the word saving means "you get more money over time," and combines the addition symbol to show that saving means adding more money together. The word spending means "you have less money after, but you get something new," and combines the subtraction symbol to show that spending money means you take away money. Students can then solve and answer questions involving spending and saving.

In the grade 2 IBL for TEKS 2.10B on Day 3, students are asked to come up with a question and four answer choices to collect data and create a graph based on the data. Then, students are asked to use the math vocabulary *most* and *least* to represent the data on their graph to the rest of the class. In the IBL for TEKS 2.3A on Day 2, students are expected to use fraction language. They are asked to explain how to partition a rectangle into halves, thirds, and fourths.

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

IBL materials provide educators with reflection questions to extend students' use of academic vocabulary with peers and educators. For example, some questions are, "What was the most difficult part of today's inquiry?" and "If you could start over, what would you do differently?" There are sections that are embedded in the print materials that allow students to engage in discourse with peers and educators, as well as videos for educators with pausing points to ask clarifying questions and allow for student discourse. Educators are provided with guided sentence starters to help facilitate, support, and scaffold peer discussion on how students solved the problems. For example, some sentence starters are "I agree with ___ because ___," and "I solved it differently than ____ because ____."

Grade 2 materials guide the teacher to create groups of no more than four students, offer guidelines for group work, and provide sentence stems to support students in expressing their thoughts. For example, "The way that ___explained the solution caused me to change my thinking because_____."

In the grade 2 inquiry for TEKS 2.10B on Day 3, teachers extend the use of students' academic vocabulary in context through lines of questioning such as, "Which of the graphs was more difficult to make? Why did you find it more difficult?" In the lesson for TEKS 2.3A on Day 2, students' use of vocabulary is scaffolded by being provided with sentence stems such as, "The way that ____ explained the solution caused me to change my thinking because _____."

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

The materials provide educators with sentence stems and guided questions for class discussion that include detailed strategies to support students' application of precise mathematical language and academic language in discourse. For example, some questions include, "If you could start over, what would you do differently?" and "How did you solve the daily inquiry?" The instructional videos in the online pathway promote and use precise academic language, such as *spending* and *saving*, to solve math questions.

The materials provide IBLs with prompts, stems, and guided questions that model the use of math vocabulary. Students are provided with sentence stems and prompts that help guide the use of mathematical thinking and language when sharing with the class.

The materials provide defined math terms to support student comprehension during independent skill practice. The online pathway allows embedded guidance for students to use the appropriate mathematical language when interacting with the online adaptive program.

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

The materials include open-ended questions or prompts that have students explain their reasoning, justify their answers, or compare different methods. For example, some prompts include, "I solved it differently than ____ because ____," and "Explain how you determined the total number of sea turtles that hatched over the two nights."

The IBLs have embedded guidance to facilitate mathematical conversations with sentence stems and open-ended questions. IBLs allow students to work collaboratively on printed materials and engage in mathematical conversations. Videos also have opportunities to pause and reflect.

In grade 2, students engage in mathematical conversations centered around addition and subtraction properties. The teacher guides students' conversations with, "How many flowers in total are in each customer's hands?," "How many bunches of 10 and how many individual flowers does each customer have?" Students are also placed in groups with guided directions from the teacher to facilitate peer-to-peer interactions.

The IBL offers a daily inquiry that requires group interaction. Teacher guidance is provided for students to collaborate for 10 minutes, draw pictures, and use strategies, with all work to be presented.

In the grade 2 IBLs for TEKS 2.3A on Day 2, there is embedded guidance to facilitate students responding to peers with sentence stems such as, "The way that ____ explained the solution caused me to change my thinking because _____." Students are asked to work in small groups to solve a math problem, discuss their thinking, and share a solution with the rest of the class.

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

In grade 2, the adaptive pathway includes automatic feedback on student responses. Every time a student answers a question, an immediate notification pops up that confirms the correct answer or responds with "Whoops! That's not correct," and provides students with hints such as a video or a guided practice option. This helps guide students to alternative strategies when they are struggling.

The IBLs include a solution sheet for each inquiry worksheet that provides student exemplar responses to questions and tasks for that day. For example, the solution sheet states, "This is a sample answer. There are multiple possible correct answers for this problem," and then provides exemplar responses. The inquiry sheet provides key information, develops questions, and shows work.

The adaptive student pathway provides students with immediate feedback for incorrect answers to questions. For example, the question asks students to use vocabulary words to determine addition and

subtraction. If the student chooses the wrong solution, they are provided a hint for solving the problem. Then, if the student chooses the wrong answer again, they are prompted to work on it together.

5.5 Process Standards Connection

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.5a	All criteria for guidance met.	1/1
5.5b	Materials do not include a description of how process standards are incorporated and connected throughout the learning pathways.	0/2
5.5c	Materials do not include an overview of the TEKS process standards incorporated into each lesson.	0/1
—	**TOTAL**	1/4

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

In grade 2, students apply mathematics to problems arising in everyday life. For example, students determine the length of objects using pieces of wood to help build a birdhouse. Students are given an analog clock and asked to identify the time, engaging them in real-world situations. The IBLs provide students with opportunities to effectively communicate mathematical ideas and reasoning, and justify their solutions both orally and in written form.

The article guides the process of integrating standards into domains. The program adjusts the students' practice to match the appropriate connected domains.

In the DOK activities, students engage in reasoning. For TEKS 2.10B, students are asked to demonstrate reasoning by identifying statements that accurately describe data. Students also engage in real-world problem solving, such as with TEKS 2.3A where students are asked to answer questions about a vegetable garden. TEKS are integrated throughout the DOK assignments. The questions provide real-world problem-solving opportunities for students and showcase which TEKS they address.

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

The materials do not describe where the process standards are incorporated throughout the learning pathways. The TEKS are listed by domains on the dashboard, but do not include the process standards. The process standards are available in the IBLs. However, a description of how they are incorporated or connected in the pathway is not available.

A Help article provides guidance for process standards being integrated into domains. However, there is no clear description of how the process standards are incorporated and connected throughout the learning pathways.

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

The materials only provide a list of TEKS, but do not include the process standards in that list or an overview. The materials teach process standards in the lessons, but do not include an overview or state where process standards are located in lessons.

A Help article guides the TEKS process standards being listed on the standards page and breaking down standards into skills and subskills. However, there is no clear guidance on how they are incorporated into each lesson.

6. Productive Struggle

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

6.1 Student Self-Efficacy

GUIDANCE	SCORE SUMMARY	RAW SCORE
6.1a	All criteria for guidance met.	3/3
6.1b	All criteria for guidance met.	3/3
6.1c	All criteria for guidance met.	3/3
—	**TOTAL**	9/9

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

In the DOK practice, grade 2 students think mathematically and make sense of math when measuring real-life objects, like pieces of wood for making a birdhouse. For example, students choose an explanation that justifies why a yardstick is a better measurement tool to use than a ruler when measuring a two-foot board. Students also choose an explanation that describes the most important rule for choosing a measuring tool. In the DOK practice, students are asked to make sense of mathematics and think mathematically by solving different types of addition problems such as change and start unknown, students are expected to persevere through math problems and make sense of a visual by finding the matching number sentence, and students can increase their knowledge by applying what they have learned through each section. The questions allow them to extend their thinking, and they are given visuals to help them make sense of problems.

Students can persevere through solving problems during the Fact Practice tasks by completing 24 addition and subtraction problems in a row. After each problem is solved, a piece of a picture is uncovered, and once all problems are answered, the picture is revealed. If the student answers incorrectly, the online program will show the correct answer and still reveal the picture.

In the adaptive student pathway, students start at a level based on their previous test results. As they answer questions correctly, the problems gradually become more challenging to match their growing skills. Students move through lessons at their own pace and increase their mathematical understanding. There are videos and help options along the way to assist students with understanding mathematical components while persevering through problems.

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

Grade 2 students explore and understand the concept of multiple ways to solve a problem. For example, in the DOK practice, students select a strategy to make an estimate to add up to four two-digit numbers

together. In the DOK practice for 2.4B "Add up to Four 2-digit Numbers" students have to find another strategy for adding in the example, "Nick's friend Maya has a trick that she uses for adding numbers. She says, 'Look at the numbers for Monday and Wednesday. There is a way to make 21+19 simpler.' Which of these could be her trick?" Students are given opportunities to work in groups to explain and justify their rationale with suggested sentence stems and guidance for the teacher. For example, students are grouped with three more students and asked, "How can we label the missing parts of the graph?"

The IBLs include student supports in explaining and justifying that there can be multiple ways to solve problems and complete tasks. For example, students use sentence stems like "I solved it differently than ____ because ___," and "The way that ____ explained the solution caused me to change my thinking because ___" to explain and justify multiple ways of solutions. They are also asked questions like, "If you could start over, what would you do differently?" This is where they reflect on their strategy and see if they would revise it using strategies their peers shared. This allows students the opportunity for discourse to understand and explain their thinking about the mathematical components within the lesson.

IBLs support students in understanding concepts by providing examples and visual representations for solving problems through video lessons. Attached inquiry sheets and discussions allow students to provide reasoning for their choices. Students are able to move along their math pathway, and if they have trouble, they can ask for help with various problems. They can explain to friends who may need help how they were able to solve their problem.

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

In grade 2, students make sense of math through multiple opportunities in their adaptive pathway involving action with math. For example, a task involving the TEKS 2.2A "Model Numbers up to 1,200" has students count base ten models and type in the number represented by a group of three hundreds and four tens. Another question requires the students to select the answer for the question, "How would six hundred ninety-five be written in standard form?"

The IBLs in grade 2 have students make sense of math by writing and discussing with both peers and educators. For example, in the lesson "Sea Turtle Hatchlings," students watch an educational video about observations of sea turtle nests with information about how often eggs hatch or do not hatch, then answer questions to determine the purpose of the day's activity. Some of the questions are, "What information from the video was important or interesting?" and "What happened due to the fact that the nest was laid too close to the water?" Students also write down the questions they are trying to answer on their inquiry sheet, then solve the problems by recording the answers and showing their work. The lessons span multiple days and support students' understanding by building on the problems from the day before. If displayed, the videos in the IBLs allow class discussions with peers and educators.

IBLs provide multiple opportunities for students to work with peers. Students are put into groups of three or four to discuss the addition of multiple numbers. Sentence stems are provided to drive the conversation. For example, "I agree with___ because___," and "The way that ___ explained the solution caused me to change my thinking because___." Students work together in groups to discuss how to solve the problems, and then are asked to share with the teacher and class.

Students interact with a digital teacher when they need help with a particular skill. For example, when students add 46 + 18 and calculate the incorrect sum multiple times, they can utilize the "Teach me" tool, which will walk them through the steps for solving the equation correctly.

6.2 Facilitating Productive Struggle

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

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

The materials provide educators with guidance and sentence stems to support students in sharing their explanations, arguments, and justifications for problems. For example, in the IBL "Importing and Exporting Goods," the slides educators use while teaching the lesson state, "One group will be selected to explain how they arrived at the solution and what their solution is." After one group presents, the slides provide educators and students with sentence stems for the class to discuss the group's solution, such as, "I agree with ____," "I solved it differently than ____ because ____," and "The way that ____ explained the solution caused me to change my thinking because ____."

In the IBL titled "Creating Museum Exhibits," educators have a list of reflection questions for students regarding their problem-solving techniques: "Jayana wrote the comparison statement: 137 > 173. Is Jayana correct? Explain why," which requires students to reflect on other students' answers and justify their own answer and argument.

If displayed, the videos in the IBLs allow class discussions with peers and educators, and the multiple days allow various opportunities to discuss, write, and do math. IBL sheets are attached to each video lesson and provide students with the opportunity to show sufficient reasoning for their answer choices. Sentence stems are provided along with opportunities to develop questions based on the targeted learning skill assigned.

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

In grade 2, the digital platform provides built-in instructional supports during Adaptive and Targeted Math Practice. If students answer questions incorrectly, they receive guided examples, hints, or videos to help them with conceptual understanding. Students can also click icons for additional support, such as a question mark, a light bulb for hints, and a video camera for videos. The adaptive pathway provides students with explanatory, step-by-step guidance on how to answer equations correctly. Educators can assign material for students based on their progress in their pathway. Students must click the From My Teacher tab to access these targeted lessons.

Guidance is provided through videos and a Teach Me button for students when completing tasks on the adaptive pathway. For example, when a student incorrectly reads the time, a hint is provided in the form of an analog clock explaining how to read that clock with a different time than the one asked. It provides the correct time with the practice clocks and asks if students want to try the question again.

The materials provide educators with guidance on providing explanatory feedback based on student anticipated misconceptions. For example, a help article titled "How are math practice questions selected for students?" states that the adaptive program uses an algorithm that breaks down the materials to support the student's understanding, and "if the student continues to struggle, the program will reinforce topics he or she has previously mastered and gradually work towards mastery." The article suggests targeted practice opportunities that teachers can assign to students based on student responses towards specific skills or concepts. It also states that the program might provide recommendations for differentiation assignments that include prerequisite skills and the current targeted skills.