Renaissance Learning, Inc.

Supplemental English Mathematics, K

Freckle for Math, Kindergarten

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)
66.77%	30	74	Flags Addressed	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	19 out of 37	51%
4. Depth and Coherence of Key Concepts	16 out of 16	100%
5. Balance of Conceptual and Procedural Understanding	27 out of 38	71%
6. Productive Struggle	9 out of 19	47%

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)	2	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	The materials do not provide teachers with units or lessons.	0/2
1.1e	The materials do 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 outlining 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 guardians 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 helps 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 K.2C "Count up to 20 Objects" states, "the student is expected to count a set of objects up to at least 20 and demonstrate that the last number said tells the number of objects in the set." 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 kindergarten materials provide teachers with instructional videos that teachers can use for whole group, small group, or individual lessons. The videos provide step-by-step examples of how to solve a particular problem according to the aligned TEKS. However, the materials do not provide teachers with units or lessons.

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.

Kindergarten includes targeted practice, printable worksheets, benchmark assessments, skills, and prerequisites, along with 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 includes 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	The 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 kindergarten, 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, in K.2.A "Count to 20 and Back," the learning objective states, "The student is expected to: count forward and backward to at least 20 with and without objects."

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 the

state, with a video on how to understand and read the focus skills, and how the skills progress across grade levels. For example, families can click on grade K, 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 their students' progress in a language other than 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	The materials do not provide definitions of formative, and diagnostic assessments.	1/2
2.1b	The 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 the 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, in TEKS K.6A, which covers the identification of 2D shapes, students identify a square using shapes and then real-world examples, count the number of triangles in a picture, and name a specific shape.

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	The materials do not provide a rationale for the incorrect and correct answers.	1/3
2.2b	The materials provide guidance for the use of included tasks and activities to respond to student trends in performance on assessments. The 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.

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 completed items, such as assessments, targeted practice, adaptive practice, and "Depth of Challenge" 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 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 "Count to 20," when students are struggling, the adaptive pathway adjusts the learning to counting to 10 for mastery, and then builds toward counting to 20 after students have shown mastery of counting to 10 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	The 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	The 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 Number and Operations, the adaptive materials provide immediate feedback to the student of correct or incorrect response and then provide a hint to the student in the form of a number line and guides the student to use their finger to "make jumps on the number line" to get to the answer. 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 program's 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, teachers 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 Math* can be used for enrichment and how to keep students engaged with enrichment activities.

A PDF on usage recommendations for DOK and Inquiry Based Lessons (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, generating and responding to questions, and representing 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 within the program's adaptive framework (hints, hover-over academic vocabulary).

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, 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 IBL 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 kindergarten, the materials include instructional videos to support concept development.

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 kindergarten, the online materials include adaptive practice that teachers can assign to students who need a challenge on a specific TEKS. The online materials also provide DOK activities for teachers to assign that allow for higher-level thinking questions for a specific skill or TEKS to help students master concepts. For example, using the TEKS K.2I, the DOK questions ask students to compose and decompose numbers using flexible strategies like choosing different number sentences for an addition problem.

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 K.6D "Attributes of 2-D Shapes," 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.

Kindergarten does not have IBL, so no check for understanding questions are provided. Students are provided with prompts to assist with questions in the adaptive program.

Materials under the Teacher Home Guide, in the Help articles, offer guidance to support educators in providing timely feedback during lesson delivery. For example, 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 (a 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	The materials do not include embedded linguistic accommodations for all levels of language proficiency.	0/4
3.3c	The materials do not include implementation guidance to support educators in effectively using the materials in state-approved bilingual/ESL programs.	0/1
3.3d	The materials do not 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.	0/8
3.3e	This guidance is not applicable to the program.	N/A
—	**TOTAL**	0/13

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 pre-teach math academic vocabulary. For example, the question for the TEKS K.2E states "The picture shows ___ 8 dots" with three answer choices of "less than," "more than," and "exactly." Students choose the correct answer without having an understanding of those key terms or an option for a hint that defines the key math words. The hint provided with the question refers to the word "more" and does not make the connection to the words greater than.

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 adaptive materials for kindergarten students consist of online questions only, without opportunities for students to respond orally or in written form for comprehension, background knowledge, academic vocabulary, and cross-linguistic connections.

The IBL, which provides opportunities to support emergent bilingual students through oral and written discourse, are included for grades 1–9 only, and do not include kindergarten.

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 kindergarten, digital practice questions provide multiple opportunities for students to understand the concept. For example, the TEKS K.4 "Identify U.S. Coins" presents pictures of coins that students use to identify the name of the coin, identify which coin is a dime, and name coins. When students answer incorrectly, a hint is provided for the students in the form of a table of all coins, including a penny, nickel, dime, and quarter, with both the front and back of the coins.

In the benchmark assessment of the TEKS K.3B "Addition up to 10," kindergarten students answer multiple questions that involve addition and use pictures of real-life objects and cubes, solve for the missing number using cubes, a story problem using subtraction, and then a number sentence. The questions assess students' depth of understanding aligned with the TEKS K.3B.

The Adaptive Math pathway allows students to work on the 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 counting to 20, addition and subtraction within 10, shapes, and identifying coins. 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, DOK 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 IBL that the teacher has specifically formulated for them based on the TEKS. Generating an IBL allows for the extension of skills to be practiced.

Teachers can assign a DOK Challenge for students to enrich and extend their thinking in a specific TEKS. For example, in kindergarten, for the TEKS K.6D "Attributes of 2D shapes," the task uses real-world examples of shapes and asks the students to select all the answers that are true attributes.

4.2 Coherence of Key Concepts

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

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

The kindergarten materials introduce the concept of "Counting to 20 and Back" as a foundation for addition and subtraction. The online materials provide students and teachers with instructional videos that reinforce prior learning of that skill. For example, for the TEK K.2C "Count up to 20 Using Objects," the instructional videos include instructions on counting up to 10 using objects and recognizing the number that comes next.

In kindergarten, addition and subtraction problem-solving are incorporated in the data analysis activities. 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.

The kindergarten materials use place value chips to read and write up to 20; grade 1 uses place value chips to compose and decompose numbers up to 120. 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 kindergarten to be successful in grade 1. 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

kindergarten, students can practice K.6.F "Model a Real-World Shape." The materials include instructional videos that cover 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 kindergarten, students use the DOK tab to access tasks aligned with targeted DOK practice. For the TEKS K.2I "Compose and Decompose up to 10," students apply their knowledge of addition to find other addition sentences that are the same. Students identify a picture that shows a certain number of objects, then select an equation that represents a picture, and finally, students determine two numbers to represent a total. The targeted DOK practice for the TEKS K.6E "Identify Shapes" builds in complexity. Students identify a shape, evaluate the attributes of a shape, and determine how the shapes have changed.

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.

Kindergarten students learn to read and write numbers up to 20 using pictures, written numerals, cubes, and number words. As students progress through the learning pathway, spiral review questions integrate this skill into generating a number that is one more or one less than a number. The materials use place value chips to read and write numbers up to 20, and place value chips to compare numbers.

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.

In the kindergarten student dashboard, number and operations section, students have access to a number line in the Teach Me section. This allows students to use it as a tool 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 kindergarten measurement learning pathway, students use a previously learned skill of comparing numbers to identify which item is heavier. 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 kindergarten 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 or subtraction 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 kindergarten targeted practice for K.2I "Compose and Decompose up to 10" provides students with several strategies, such as pictorial representations and cube representations.

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 kindergarten, using the TEKS K.8A "Organize Data," the students are given a variety of objects to analyze and evaluate models to collect, sort, and organize data. Using the targeted DOK practice with the TEKS K.6E "Identify Shapes," students evaluate real-world items to determine correct facts and attributes about the shapes.

In kindergarten, K.2I "Compose and Decompose up to 10," targeted DOK practice Question 1, students are asked to analyze pictorial models and evaluate whether or not show a certain amount of shells. In K.7A "Describe Objects," Question 2, students are given pictures of different length objects and have to evaluate which one is the shortest.

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 TEKS, which can be printed.

In kindergarten, using the TEKS K.2I "Compose and Decompose up to 10," students are given pictorial representations. However, the materials do not provide an option for students to create their own pictorial representations. 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 the kindergarten targeted practice for K.6F "Building a Model of Real World Shapes," students are not actually required to create their own model or representation; instead, they choose a shape or match attributes. In the targeted practice for K.3B "Addition up to 10," students practice adding up to 10. Pictorial models are provided. However, students are not asked to create their own. There is not a place where students are encouraged or instructed to draw their own picture or to use manipulatives to solve the problems.

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 different TEKS as needed, which will allow students opportunities to understand new problems and contexts.

In kindergarten, students apply their knowledge of the TEKS K.6D "Attributes of 2D Shapes" to real-life objects to identify true attributes about the different sizes of pillows, carpets, and rooms. Students apply their knowledge of the TEKS K.7A "Describe Objects to Real-World Items" to determine which would be the heaviest and shortest, and find two words that would describe a specific item.

In kindergarten, for the TEKS K.9C "Skills for Jobs" in the targeted practice, students apply their knowledge to real-world examples by identifying skills that people need for different careers. For the TEKS K.7B "Compare Two Objects," students are asked to compare several objects that they encounter in their daily lives at school.

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 kindergarten 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 kindergarten 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 1 starts with addition up to five with objects and then progresses to addition up to 10 using a ten frame. 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 kindergarten, students add and subtract up to 10 using multiple strategies, such as 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 addition and subtraction problems. For example, in Number Facts, students use a variety of strategies to solve addition up to 10, and in Fact Practice, students use mental math to solve for 24 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. For example, students are building fluency with addition up to 10 with and without tens frames.

Through the adaptive pathway, students in kindergarten 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 kindergarten, during a DOK Challenge, students answer the online question "Which picture shows nine shells?" Students evaluate accuracy by selecting the model that shows the correct answer. Another question asks students to evaluate for flexibility by asking, "Which number fact will give them the same number of shells as 2 + 5?" Students select the correct number fact that represents the same as 2 + 5. The opportunities for students to evaluate for efficiency are present in the materials.

Kindergarten students explore math standards, build critical thinking skills, and evaluate mathematical reasoning through targeted DOK questions. 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 IBL.

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

The materials provide guidance and explanations of efficient approaches to solving mathematics problems or 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 with the 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	The 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	The materials do not include supports for students in defining and explaining concrete models to abstract concepts.	5/6
—	**TOTAL**	8/11

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

The materials do not explain why or how the conceptual understandings support the procedural emphasis of the TEKS. The materials organize the TEKS and corresponding skills into larger groups called domains. For example, the Algebraic Reasoning domain includes the TEKS K.5, and the Data Analysis domain includes the 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."

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."

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 kindergarten, students can use the drawing pen to write the equation 5 + 9 = 14 after listening to a word problem.

The DOK questions allow 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 kindergarten provide practice by allowing students to count seashells and create a number sentence to represent a whole in K.2I. Students use pictorial representations of shells and abstract models of addition number sentences to solve problems.

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

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

The materials provide prerequisite skills videos that help students connect concrete and representational models to abstract concepts. For example, the TEKS K.2B "Read and Write up to 20" video shows a drawing of two stars with numbers representing each star, and then adds one more star to show number three. Another video shows a number line and adding the numbers to it to help with counting on. Yet another video shows how to write numbers up to 15, making sure to explain the difference between numbers after nine.

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.

DOK questions build on initial prompts, encouraging students to define and explain their use of representational models to abstract numeric and algorithmic concepts. In the targeted DOK activity "Composing and Decomposing Numbers up to 10 Using Objects and Pictures," students identify the number nine using pictures. Then, they move seashells between baskets to match number sentences. Another task asks students to represent eight using seashells and two baskets.

5.4 Development of Academic Mathematical Language

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.4a	All criteria for guidance met.	1/1
5.4b	The materials do not include embedded educator guidance to scaffold, support, and extend students' use of academic mathematical vocabulary in context when communicating with peers and educators.	0/2
5.4c	The materials do not include embedded guidance to support student application of appropriate mathematical language and academic vocabulary in discourse.	0/1
5.4d	The materials do not include embedded guidance to facilitate mathematical conversations, allowing students to hear, refine, and use math language with peers.	0/2
5.4e	All criteria for guidance met.	2/2
—	**TOTAL**	3/8

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 concept of *more than*, *less than*, and *exactly*. As the students count dots, they can click on the Teach Me button that shows in three steps how to count the dots in one group, then in a different group, and finally compare them in the two groups by asking, "Is five more than or less than six?" An instructional video is available to students as well, which shows students how to count two groups of rocks to see which group has more, stating that six is more than five.

In kindergarten, students can use shapes to identify the attributes of a two-dimensional shape. K.6E "Attributes of 2-D Shapes" provides students with different-sized pillows and rugs and asks them to choose all the ways they are alike based on selected attributes.

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.

Kindergarten students have the option for peer-to-peer math support through hint pop-ups that say, "Still stuck? Ask a friend," which includes a list of classmates who have mastered the specific skill. While

students have the opportunity to independently communicate with peers, the materials do not provide educator guidance to scaffold, support, or extend students' use of academic vocabulary during these interactions.

In kindergarten, students can click on specific academic words to see and hear definitions. However, students do not have opportunities for students to engage in mathematical vocabulary-rich dialogue with either peers or educators.

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

Kindergarten students have the option for peer-to-peer math supports in the form of a hint pop-up that says, "Still stuck? Ask a friend," with a list of a few students in class that have shown mastery in that specific skill. While students are given the opportunity to communicate with peers, the materials do not provide educator guidance to support students' application of mathematical language as students are communicating with peers independently and not with educator guidance.

In kindergarten, students can click on specific academic words to see and hear definitions and are provided with visuals of ten frames and counting objects. However, without IBL, the materials do not provide opportunities for communication among peers or the teacher.

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

In kindergarten, the materials do not provide opportunities for collaborative learning in which math concepts are discussed with peers or educators. The online pathway for kindergarten only provides independent practice without opportunities for students to communicate with peers or record their voices. The materials do not provide prompts for students to discuss or build upon the academic language of their peers.

Students engage in the adaptive pathway using tools and embedded vocabulary practice. However, the materials do not provide opportunities for students to discuss math concepts among peers.

When students miss a question, they are guided to ask a peer for support. However, there is no embedded guidance on how to engage in that mathematical conversation.

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 kindergarten, 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.

In kindergarten, the adaptive pathway includes automatic feedback on student responses including the correct answer. When a student answers incorrectly, the adaptive pathway allows the student two more chances to get the correct answer, then the pathway will provide the students with the correct answer. For example, the question asks students which number is greater than 101. If the student answers 100 they are immediately provided with a hint to count by ones.

5.5 Process Standards Connection

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.5a	All criteria for guidance met.	1/1
5.5b	The materials do not include a description of how process standards are incorporated and connected throughout the learning pathways.	0/2
5.5c	The 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 kindergarten, students apply mathematics to problems arising in everyday life. For example, students identify attributes of 2D shapes using real-world identification of shapes, such as pillows, rugs, and an outline of a rectangular bedroom. Students are also given a visual of a park and asked to identify the shape of the roof.

The Help 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 the TEKS K.2I, students are asked to reason by finding an equivalent addition fact. Students also engage in real-world problem solving. For the TEKS K.6E, students are asked to identify the shape of signs they would encounter in their daily lives. The TEKS are integrated throughout the DOK assignments. The questions provide real-world problem-solving opportunities for students and showcase which of the 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 DOK Challenge. However, a description of how they are incorporated or connected in the pathway is not available.

The 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 the 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	The materials do not support students in explaining and justifying that there can be multiple ways to solve problems and complete tasks.	1/3
6.1c	The materials do not include multiple opportunities for students to write about and discuss math with peers and/or educators.	1/3
—	**TOTAL**	5/9

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

In the DOK practice, kindergarten students think mathematically and make sense of math when comparing real-life objects to one another. For example, students choose a measurement description that justifies why one sandwich bag is heavier than another sandwich bag; some of the answer choices are: "it is in a bigger bag" and "it has a bigger piece of bread." Students are asked to make sense of mathematics by looking at real-world objects and comparing how they are similar and different. They are also asked to think mathematically by choosing math-related statements to describe two different rectangles.

In kindergarten, DOK K.2I, students are given a red basket and a blue basket with seashells and asked to count the shells to see which basket gives them nine shells total. The questions that follow gradually increase in difficulty by asking students to compose an addition sentence, and taking eight seashells and breaking them into two baskets. Students are able to increase their knowledge by applying what they have learned through each section. The questions allow them to extend their thinking with each one, and they are given visuals to help them make sense of the 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.

Kindergarten students explore and understand that there are multiple ways to solve a problem. For example, in the DOK practice, students select another addition expression that will give them the same answer as 2 + 5. Students can complete their tasks with the use of visuals. They can move along their math pathway, and if they have trouble, they are able to ask for help with various problems by asking a friend to share their strategy; however, there are no built-in opportunities for students to explain or justify that there could be more than one way of solving a problem.

In the kindergarten DOK task for K.2I "Compose and Decompose up to 10," students understand that there can be multiple ways to solve problems. For example, Question 1 states, "Jen has a blue basket. Meg has a red basket. They count their shells together. Which picture shows nine shells?" Question 2 states, "Jen has two shells. Meg has five shells. They move some shells from one basket to another. Which number fact will give them the same number of shells as 2+5?"

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 kindergarten, students make sense of math through multiple opportunities in their adaptive pathway involving action with math. For example, a task involving the TEKS K.2B "Read and Write up to 20" has students count how many slices of banana Hugo has chopped and then select the numeral that matches how many they counted. Another question requires students to select the correct way of writing the number twelve, including answer choices with both numbers written backward, the correct number, and the number 21.

Digital materials for kindergarten only allow students to select answers. They lack writing or recording opportunities that would allow students to reflect on or discuss mathematical processes or problem-solving strategies with peers and/or educators. There are no tools for writing or recording their thoughts, so they cannot write about or talk through their math thinking or how they problem-solve.

Students are given the opportunity to do math with peers when they miss a problem in the adaptive pathway. They are told to "ask a friend" who got it correct for help. However, there is no guidance or prompts for students when discussing math. The opportunities are also not consistent since they are dependent on student success in the pathway.

6.2 Facilitating Productive Struggle

GUIDANCE	SCORE SUMMARY	RAW SCORE
6.2a	The materials do not support educators in guiding students to share and reflect on their problem-solving approaches, including explanations, arguments, and justifications.	0/6
6.2b	All criteria for guidance met.	4/4
—	**TOTAL**	4/10

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

The digital platform in kindergarten only provides students with the opportunity to answer questions within the online program and does not offer any opportunities for meaningful engagement in mathematical discourse. For example, students select "yes" or "no" in response to the question "Sophie said 25 comes right after 26. Is she correct?" These are the only available options. Students are not prompted to reflect on their problem-solving approach, share their thinking with others, or explain their reasoning, arguments, or justifications.

The materials do not provide educators with sentence stems to support students in explaining their approach. Additionally, the kindergarten materials lack IBL, so students do not have the same opportunities as those in other grade levels to share and reflect on their problem-solving strategies.

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

In kindergarten, 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 comparing numbers up to 20, students can click on the Teach Me button, which guides them first to count a group of dots, then count a different group of dots, and finally compare the two groups of dots using *more than* and *less than* vocabulary.

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.