Renaissance Learning, Inc.

Supplemental English Mathematics, 6
Freckle for Math, 6

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)
88.39%	112	6	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	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 21	90%

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	5	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 include protocols with corresponding guidance for each unit and lesson internalization.	0/2
1.1e	Materials do not include guidance for instructional leaders to support educators in 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 in grade 6 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, such as just-in-time supports, advanced learning, or as a course.

Materials in grade 6 provide an implementation guide and math usage recommendations to tailor effective educator use in various instructional settings, such as targeted math practice or focus skills practice. Materials also include an adaptive math learning pathway for students, as well as real-world enrichment activities for advanced learners.

The materials in grade 6 include recommended usage times per week and research to support the benefits of the recommended time. The recommendations document also outlines the type of practice an educator can assign to target a specific focus.

Grade 6 materials include planning suggestions for the beginning, middle, and end of the school year, as well as guidance on integrating the materials into school or district pacing. For example, the "Math Usage Recommendation" file highlights components such as mastery practice, number sense, fluency, and real-world problem solving to help teachers effectively implement these elements.

The materials in grade 6 include guidance support for educators under the "Adaptive Practice" section. Guidance is given on why this practice should be assigned and in what setting (independent practice, homework, response to intervention [RTI], centers).

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

Grade 6 materials provide educator guidance in recommending a skill entry point based on a pretest, Star Math assessment, taken via the Renaissance Platform. Once students have finished the assessment, teachers can analyze data in the reports tab. The grade 6 materials include TEKS that correlate to assessment questions. It also includes a recommended skill entry point based on the diagnostic assessment results.

The materials in grade 6 are organized by domain, and each TEKS has a description provided with prerequisite skills needed for student success.

The materials in grade 6 include diagnostic tests before entering the adaptive pathways, which guide the concepts taught throughout the instructional year.

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

The materials in grade 6 include guidance for lesson internalization, but lack the step-by-step internalization that Instructional Materials Review and Approval (IMRA) defines within the glossary for the term, internalization. For example, the target skills and domains section within the Content tab contains descriptions of how to use the online practice and the printable resources, but does not include step-by-step internalization.

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

The materials in grade 6 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	Materials do not include detailed lesson overviews with learning objectives, and assessment resources aligned with the ELPS.	3/5
1.2c	Grade 6 materials do not include support for families in Spanish and English for each unit, with suggestions on supporting the progress of their students.	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.

Grade 6 materials provide recommended daily and weekly lesson cycles for various Freckle components, such as "Mastery Practice," "Number Sense and Fluency," and "Real World Problem Solving."

Materials in grade 6 provide step-by-step instructions to assign various assessment resources to a single student, group of students, or a whole class, and also guide how to select the standard(s) to be included in the assessment.

The adaptive math pathway in grade 6 begins with a pretest that helps determine the structure and learning objectives of each daily lesson, ensuring instruction is tailored to meet the individual needs of each student while aligning with the standards.

In the grade 6 materials, each standard is clearly described, with focus skills explicitly identified. For every standard, the aligned TEKS are specified, and a variety of practice activities and resources are provided, including sample questions and differentiated practice opportunities.

In grade 6 materials, the teacher can assign students targeted practice, an IBL, fact practice, focus skill practice, or an assessment. These lesson components include a choice for the teacher to select the TEKS as well as the number of questions a student should answer (3 questions, 5 questions, and 10 questions).

The materials also include detailed overviews with learning objectives aligned with the TEKS. For example, in the IBL titled "Licensing a Patent" under grade 6, the teacher can see a lesson overview, the targeted

TEKS, as well as how many days it will take for students to complete this lesson. The lesson includes components such as videos, slides, inquiry sheets, and worksheets titled "Day 1 Solutions."

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

Grade 6 materials contain support for families in English, including a "Family Letter" that details login and usage recommendations, but do not contain support for each unit.

The materials in grade 6 provide generic strategies for teachers to recommend to parents during a parent-teacher conference once a report card is sent home showing a lack of growth for students. The materials do not contain suggestions for families to try at home for each unit.

Grade 6 materials do not contain support for families in Spanish.

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 include definitions for the types of instructional assessments.	1/2
2.1b	Materials do not include guidance to ensure consistent administration of instructional assessments.	1/2
2.1c	Materials do not include content and language supports, nor calculators that educators can enable or disable to support individual students.	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.

Grade 6 materials include an article in the Help Articles tab titled "What is Freckle Math Practice?", which explains the various types of instructional assessments and clarifies the difference between adaptive and targeted practice. Screenshots of components in the materials are illustrated in the article to support teachers in clearly understanding the intended purpose of the different types of instructional assessments.

Grade 6 materials include Diagnostic Assessment data via Renaissance that provides a student's baseline skill proficiency. Customized Summative Assessments offer data on specific or multiple standards throughout the year or as end-of-unit assessments.

Grade 6 materials explain the intended purpose of formative assessments in the Math Usage Recommendations: Resources > Usage Recommendations, by guiding instructional decisions, such as adjusting or resetting a student's instructional pathway.

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

The grade 6 materials provide a guiding document, "Usage Recommendations," in the Math Usage Recommendations: Resources outlining administration time allotment for various types of assessments. The guiding document explains the purpose of each assessment to ensure accurate administration of instructional assessments. The grade 6 materials include research-based findings in their "Usage Recommendations" page found in Math Usage Recommendations: Resources by providing a link to

research on using assessments to improve students' performance to ensure accurate administration of instructional assessments.

Although the materials in grade 6 include a "Math Usage Recommendation" sheet that outlines the total time per week a student should spend working on Freckle, there is not enough evidence to support the guidance of 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.

Grade 6 materials provide printable versions of assessments to support individual students under the "Assignments" and "Math" sections, and accommodations—including text-to-speech, content and language supports, and calculators—that educators can enable or disable to support individual students, which can be found within the "Student Roster."

Grade 6 materials include worksheets in the Content tab that include "Adaptive Practice," individualized to each student's performance level, or Targeted Practice, generated by TEKS, in a printable format. Grade 6 materials provide text-to-speech accommodations that can be enabled to support individual students within lessons and assessments. This can be done by going to the roster tab in the materials, then clicking on the settings wheel icon next to a student's name and selecting "Edit Student." The third tab, titled "Support Settings," allows the educator to select the audio setting to automatically read text aloud.

Grade 6 materials also include content support through their adaptive practice that adjusts to students' working level and also gives hints when questions are answered incorrectly. Language supports are included through the language support option in the roster section of the materials. Although these supports are embedded in the online program, the educator cannot enable and disable them for individual students.

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.

Grade 6 materials include formative assessments that are TEKS aligned with interactive item types such as multiple choice, write-in, multi-select with DOK level 1 (identify), DOK 2 (solve), DOK 3 (create), which shows a varying level of complexity. For example, in the three-day Inquiry Based Lesson (IBL), "Tour de France," students solve one-step equations on Day 1 (DOK 1), analyze a chart to understand the pattern of change on Day 2 (DOK 2), and calculate and create a graph to represent the time and distance a biker would travel after 10 hours on Day 3 (DOK 3). The grade 6 materials include a variety of question types. For example, in Math Topic "6.12 B Patterns & Deviations," Targeted Practice assessment questions include multi-select questions, such as completing a table to identify parts of a box and whisker plot. Additionally, practice questions include multiple-choice questions to select a true statement and drag-and-drop questions to sort data into categories. Questions increase in rigor based on student performance.

Grade 6 materials include interactive item types in the Adaptive Math pathway, such as multiple-choice, fill-in-the-blank, and text entry questions. The Constructed Response questions, such as those in "Solve a problem involving whole, parts, and percentages," are divided into conceptual, situational, and visual assignments, providing questions at DOK levels 1, 2, and 3.

2.2 Data Analysis and Progress Monitoring

GUIDANCE	SCORE SUMMARY	RAW SCORE
2.2a	Materials do not include a rationale for each correct and incorrect response.	1/3
2.2b	All criteria for guidance met.	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.

Grade 6 materials provide instructional assessment reports, for example, the "Performance by Topic" report in the Math Reports tab. These reports provide scoring information and guidance for interpreting class and/or individual student performance on the topics in Grade 6 Mathematics. The grade 6 materials include scoring information and guidance for interpreting student performance in the "Assessment" report located in Math Reports. Student performances are indicated through a color-coded system: red means not passed, yellow means approaching, and green means passed. The grade 6 materials include an article titled, "What data can I see on the assessment's report?" in Help Articles. The article includes scoring information for classes, individual students, by domain, by standard, and by question. The materials also guide in interpreting data on the assessment growth report. The grade 6 materials do not provide a rationale for each correct and incorrect response on an assessment.

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

Grade 6 materials guide the use of included tasks and activities students should complete in response to student trends in performance on assessments. For example, when one or more students do not perform well on Expressions, Equations, and Relationships (6–8) concept activities (TEKS 6.6C or 6.11A), the educator is guided by the Student tab in the Assessments report in the Reports tab to assign a Targeted Math Practice on Topic TEKS 5.4D: "Additive and Multiplicative Numerical Patterns." The grade 6 materials include a "Class Grouping" report in the Reports tab, which groups students by performance on various TEKS from pre-test, and the teacher can assign specific topics to students within the group. The Adaptive Progress Report Card in the grade 6 materials' Reports tab identifies trends in student progress for each math strand. The educator can assign prerequisite skills practice to students from this report based on the trend lines.

Grade 6 materials include different tabs, like Domain and Standards, in the Assessments report from the Reports tab, which shows the breakdowns for each class and individual student on each domain and standard assigned, and guides the educator to reassign the assessment to groups of students scoring under certain criteria.

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

Grade 6 materials include teacher tools such as the Performance by Topic report in the Reports tab to track class and/or student standard mastery, progress, and growth displayed via color-coded bands. The Premium Edition report provides the option of listing students per accuracy level. Students scoring less than 50 percent accuracy level will be listed in the Red Color Band; students scoring a 50–80 percent accuracy level will be listed in the Yellow Color Band, while students scoring greater than 80 percent accuracy will be listed in the Green Color Band. Grade 6 materials include student tools to track their progress and growth, such as the Report Card found in the Student Backpack. For example, when a student logs in to their dashboard, they click on the From My Teacher backpack icon. In the Student Backpack, the student can click on the Report Card tab to view their Starting Level, Current Level, and Levels Grown for specific topics.

Grade 6 materials include the Adaptive Progress Report Card within Reports that identifies for teachers trends of student progress for each math strand. Grade 6 materials include the Reporte de Matematicas in the student platform allows students to see the initial level versus their current level for each domain, and shows how many levels they have increased in each domain. The grade 6 materials include a Student Goal Setting feature in Reports that allows students to track their progress and growth by either answering questions correctly or meeting a minimum accuracy threshold. Students can earn coins and track their practice time and math report by reporting categories. The grade 6 materials include multiple teacher reports in Reports to track student progress and growth. Some examples of the reports available are Math Levels, Performance by Topics, Skills Progress, and Assessments.

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.

Grade 6 adaptive materials provide instructional supports such as guided practice examples, hints, and/or videos to improve students' level of understanding. For example, in the Targeted Practice, when students answer incorrectly to a 6.3D - "Add, Subtract, Multiply, and Divide Integers" assignment

question, Freckle will automatically provide a hint or a video to support their understanding. In the grade 6 materials assignment for TEKS 6.11, in the Targeted Practice, the educator can assign either a mini-ticket (three questions), an exit ticket (five questions), or a regular practice (10 questions) as frequent checks at key points throughout the lesson. The grade 6 materials are adaptive and provide frequent checks for understanding at key points throughout each lesson or activity. For example, Freckle's Adaptive Math pathway starts with a pre-test to identify each student's level, then tailors the content to meet their individual needs. Throughout the lessons and activities, students get regular checks for understanding and immediate feedback, such as hints and reteach lessons within the questions, and the difficulty adjusts automatically to keep them challenged without overwhelming them.

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 supports for developing academic vocabulary or unfamiliar references, and embedded supports for *unfamiliar* references.	1/4
3.1c	All criteria for guidance met.	2/2
3.1d	Materials do not include accommodations, including content and language supports, and calculators that educators can enable or disable for 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.

Grade 6 materials include explicit educator guidance for scaffolded activities (Differentiated Practice: Skills & Prerequisites and instructional videos) for students who have not yet reached grade-level concept/skill proficiency. For example, in Numbers and Operations on the Standards tab, when hovering over TEKS 6.3C: "Integer Operations Using a Model," a pop-up menu opens with one of the selections being More Resources, which leads to the Differentiated Practice section.

Grade 6 materials include step-by-step educator guidance in the article, "What can I do on the Standards page?" in the Help Articles tab, on how to access scaffolded resources and strategies to student progress toward lesson objective mastery.

The grade 6 materials provide an adaptive practice component that automatically adjusts and remediates for students who are struggling with a concept. According to the article, "How are Math Practice Questions Selected for Students?" in the Help Articles tab, the material's adaptive algorithm reinforces topics for students needing scaffolding to reach mastery. The article also details how the product guides educators in using the lessons and activities for students who have not yet reached proficiency in prerequisite or grade-level skills. As the teacher assigns a practice assignment based on a skill or a standard, the materials will suggest prerequisite skills to assign to individual students based on their current practice levels. These students will not see the standard practice that all other students were

assigned, as they will only see and work on the prerequisite skill that will allow them to scaffold their learning to reach grade-level concepts.

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 grade 6 online platform includes real-time embedded supports for developing academic vocabulary by providing students access to vocabulary definitions. For example, in "Expressions, Equations, and Relationships" (TEKS 6.10A "Solve a Problem Using a 1-Step Linear Equation") students can select the Teach Me instructional support icon. The student is taken to a new screen within the lesson that assists with steps. Each step gives simplified instructions with underlined academic vocabulary. In Step 1 of 3, a student can click on the word *divided* to display the definition, "split into equal groups."

The grade 6 materials include student support for academic vocabulary, including mathematical expressions. For example, in the topic "Expressions, Equations, and Relationships" on the Standards tab, in Lesson 17, Question 1, the words *equation represents* are underlined. Students hover over these words, and the definition is provided in the student dashboard.

The grade 6 materials' online platform includes embedded support by having underlined academic vocabulary that students can click on to either hear or read the definition. For example, according to the academic section of the help article titled "What instructional supports are offered within the math practice program?," in a question about measurement and data, students are asked about the perimeter and length of a rectangle. The word *perimeter* is underlined so that when students click on the word, the definition is shown.

No evidence was found in the grade 6 materials that shows explicit educator guidance for language supports to include pre-teaching, developing academic vocabulary, and unfamiliar references in text.

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.

Grade 6 materials include explicit educator guidance for extension activities for grade-level performing students. Freckle's Extended Thinking IBL, "Licensing a Patent," asks students to create a diagram and write a description of their invention. This involves applying their grade-level conceptual understanding of TEKS 6.5B, solving a problem involving parts, wholes, and percentages in a real-world context. Educator guidance is included in two articles from the Help Articles, Inquiry Based Lessons section titled: "What are Inquiry Based Lessons?" and "What is in each Inquiry Based Lesson?"

Grade 6 materials include explicit educator guidance for enrichment activities for grade-level and above grade-level performing students. Freckle's Extended Thinking: Constructed Responses asks students to

respond to conceptual, visual, and/or situational prompts by applying their knowledge and skills to standard-driven performance tasks. The Proportionality Domain (6–8) contains both grade-level (TEKS 6.5B Solve a problem involving parts, wholes, and percentages) and above grade-level (TEKS 7.4D Rates, ratios, and percents) real-world scenarios. Educator guidance is found in the Help Articles > Math Practice Program> Math Practice Program Content titled, "What are Constructed Response prompts? How do you use them?"

The grade 6 materials include explicit educator guidance for enrichment and extension activities for students who have demonstrated proficiency in grade-level content and skills. This can be found in their Help Articles that guide educators on how to use the IBLs component of the materials. For example, in the help article titled "How Do I Use Inquiry Based Lessons in My Classroom," teachers are guided in implementing this component of the materials effectively. No evidence was found in grade 6 for explicit educator guidance for extension activities for above grade-level performing students.

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.

Grade 6 materials provide text-to-speech functionality that can be enabled or disabled by educators, in the Roster tab on Freckle's Home Page, for individual students during assessments and practice activities.

The grade 6 materials allow the educator to turn on the language of preference for individual students in the Roster tab on Freckle's Home Page. The educator cannot enable or disable interactive hints, visual support, or simplified language, as they are embedded in the lessons and assessments for all students.

The grade 6 digital materials do not allow educators to enable or disable various types of calculators, as appropriate for the grade level and content of the lesson.

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.

The grade 6 materials offer a wide range of problem-solving options, including interactive exercises, video explanations, and real-world applications found within the IBLs, and provide explicit educator guidance on offering options for students to demonstrate understanding of mathematical concepts in various ways, such as perform, express, and represent.

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 adaptive grade 6 materials include explicit prompts and educator guidance to build knowledge by activating prior knowledge and anchoring big ideas as seen in the Standards, Number and Operations, TEKS 6.3B, "Examine Product Value Without Calculating." Educator guidance to anchor big ideas is found in the Lesson Overview, which explains that students will determine, with and without computation, whether a quantity increases or decreases when multiplied by a fraction. The educator activates prior knowledge through the Skills and Prerequisite lesson and the instructional videos.

The adaptive grade 6 materials include explicit prompts and educator guidance to build knowledge by highlighting key patterns, features, and relationships through multiple means of representation as seen in the Standards, Number and Operations, TEKS 6.3B, "Examine Product Value Without Calculating." Using the IBL in the More Resources option, educators use multiple means of representations to highlight and connect key patterns, features, and relationships during the "Name That Price" game in the IBL, when students determine item prices to make the most profit, determine the value of a number when multiplied by a fraction less than one, and explain how they used their understanding of multiplying whole numbers and fractions to estimate prices.

The grade 6 materials highlight and connect patterns, key features, and relationships through multiple means of representation. For example, in the Student Dashboard for Expressions, Equations, and Relationships, Writing Inequalities, students can select Teach Me, then a number line will be used to review the skill, using on-level student questions and hints that focus on equations and word form to practice the skill. Students have also utilized the number line with TEKS 6.2 B (Absolute Value) and 6.2D (Order Rational Numbers). Using the number line in multiple lessons helps students understand the features and relationships between visual representations of number lines and number sense, as well as writing equations and inequalities. Students can access the number line tool in their toolbox.

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.

Grade 6 materials include multi-tiered intervention methods for various types of practice, such as Targeted Math Practice, in the Content tab, which allows educators to assign Tier-2 or Tier-3 students performing at the same level a targeted skill or standard with intervention supports to complete. The intervention supports would include prerequisite critical skill assignments, and/or guided practice support videos providing Tier-2 and Tier-3 students with knowledge about a standard's key elements. Educators can also print out targeted skills or standard worksheets to give more one-on-one, intensive Tier-3 support.

The grade 6 materials include multi-tiered intervention methods for various types of practice and structures. Some types of practice and structures included in the Content tab of the materials are Fact Fluency, which is individualized practice with audio and visual support, IBLs where students are presented with a real-world challenge and are tasked to solve problems in a group setting, and Adaptive Math pathway where the program adapts to individual student's levels based on a pretest assessment.

The grade 6 materials include educator guidance to support effective implementation through their Help articles. For example, in the article, "What instructional supports are offered within the math practice program?" educators can read about the automatic interventions offered to students answering questions incorrectly while working in the Adaptive Math pathway. A section in the article, "Peer-to-Peer math support," describes how a student struggling with a certain concept in the Adaptive Math pathway can see the names of three of their peers who have already mastered that concept. This embedded support would allow for classroom interaction and a collaborative peer structure.

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

The grade 6 materials include enrichment and extension methods that support various forms of engagement. For example, the IBLs are cross-curricular activities that use mathematical concepts in real-world scenarios. In the IBL "A Checkup at the Veterinarian," students use additive and multiplicative expressions and equations to develop a treatment plan for a dog and focuses on applying a more in-depth (enrichment) student knowledge of math content TEKS 6.10A (solving a problem using a one-step linear equation) and extending this knowledge toward real-world math application of creating a treatment plan for a dog. The grade 6 materials provide enrichment and extension methods that support various forms of engagement and guidance to support educators in effective implementation. For

example, in the IBL "Licensing a Patent," students build upon their knowledge of 6.5B (Solve real-world problems to find the whole given a part and the percent, find the part given the whole and the percent, and find the percent given the part and the whole, including the use of concrete and pictorial models) and extend their learning into real-world situations by comparing various royalty rates and deciding to which company they should license their patent. In each IBL, there is day-by-day explicit teacher guidance. The grade 6 materials include educator guidance to support effective implementation of the enrichment and extension IBLs. Educator guidance can be found through Help articles. For example, in the articles "What are Inquiry Based lessons?" and "How do I use Inquiry Based lessons in my classroom?" teachers are guided on implementing this component effectively.

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

The grade 6 adaptive program materials include videos, hints, and step-by-step examples when a student requests help through the question mark icon or for wrong answers. The Help article, "What can I see on the teacher dashboard?," indicates that teachers can see questions answered and which student answered from their dashboard, along with color-coding to show if a student is struggling with content. This is an example of how prompts are provided to educators to provide timely feedback. Practice modes that cannot be resumed need to be completed before data is shown, which impacts the ability for the educator to intervene immediately.

The grade 6 materials guide supports educators in providing timely feedback. In the article, "What can I see on the Assignments report?," educators can see student accuracy, if students were supported by a walkthrough video, and links may be provided to the educator to provide follow-up tasks, review challenging questions, reassign standards, or view extension lessons.

Adaptive online grade 6 materials include prompts and guidance to support educators in providing timely feedback during lesson delivery. For example, students receive real-time feedback prompts such as hints, instructional videos, asking a peer who performed well for help, or using a step-by-step guided lesson when they incorrectly answer practice questions during Targeted Practice assignments.

Grade 6 materials provide educators with guidance to provide timely feedback. For example, educators use the "Performance by Topic" report found in Math Reports to view student performance by a topic, such as "Proportionality" (TEKS 6.4A - Additive and multiplicative relationships) and select additional 6.4A resource suggestions to assign students who need more practice with the skill.

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 do not 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 academic language.	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.

Although the product provides hints, guided practice, and vocabulary support (underlined words provide definitions, provided examples, sentence stems, etc.), these supports are not differentiated based on ELPS levels. A non-example from the evidence guide states, "Adaptive materials include generic tips for emergent bilingual students and do not address the multiple levels of language development. For example, the same sentence stems are used throughout the lessons or activities."

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

The grade 6 materials do not include implementation guidance to support educators in effectively using the materials in state-approved bilingual/English as a Second Language programs.

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.

Materials include embedded guided opportunities to support bilingual students in increasing comprehension through oral and written discourse. Educators implement IBLs in various classroom settings, such as collaborative small groups for students who need to review a concept or advance to a new mathematics concept, according to the Help article, "How do I use IBLs in my classroom?" Furthermore, according to the Help article, "How does Freckle support English Language Learners (ELLs) and Spanish-speaking students?" the online materials respond to an individual student's abilities. The students use sentence starters such as "I agree with . . . because . . ." to further increase comprehension during group problem-solving discussions and work.

Materials include embedded guided opportunities to support bilingual students in building background knowledge through oral discourse. Educators implement IBLs in various classroom settings, such as collaborative small groups for students who need to review a concept or advance to a new mathematics concept. Thus, Emergent Bilingual students with similar language proficiency levels and math skills can be grouped to solve real-world problems. Students use oral discourse to build background knowledge during the Develop Question step of the lesson. Students develop questions or use the Suggested Questions slide to discuss prior knowledge and experiences.

IBLs offer guided opportunities for students to collaborate to solve word problems. The students are encouraged to use precise mathematical language when explaining their solution strategies to one another. The article in Help articles, "How do I use Inquiry Based Lessons in my classroom?" guides the educator on whole class discussions and mixed groups, small groups, and centers collaboration. The progression of the IBL increases comprehension and builds background knowledge through oral discourse.

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.

3.3e – 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.

Grade 6 materials provide practice opportunities in the Adaptive Practice that require students to demonstrate their depth of understanding aligned to the TEKS, thus, increasing retention. One of these opportunities is through K–12 Targeted Math Practice, where students are assigned a specific standard to practice and deepen their understanding.

The grade 6 materials provide practice opportunities through learning pathways that adapt in rigor and pacing to student levels, requiring students to demonstrate depth of understanding aligned to the TEKS. For example, in the IBL "A Checkup at the Veterinarian," students are asked to solve problems by writing and solving a one-step linear equation. The three-day real-world lesson requires students to demonstrate their understanding by increasing the rigor in each of the day's word problems.

The grade 6 materials include assessments in the Targeted Practice and Adaptive Practice in the Content tab that require students to demonstrate the depth of understanding aligned to the TEKS by providing a benchmark assessment where every TEKS is available to be assigned to students, assessed, and monitored through data. Teachers can individually select a standard they want to assess for understanding, or they can select one or all of the five reporting categories to include: 1. Number Operations, 2. Personal Financial Literacy, 3. Expressions, Equations, and Relations, 4. Measurement and Data, 5. Proportionality.

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.

Grade 6 materials from the K–8 Adaptive Math pathway provide students with tasks adapted to their level. As students continue progressing through the adaptive pathway, the tasks increase in rigor and complexity, leading to grade-level proficiency. The grade 6 materials include questions and tasks that

increase rigor and complexity through their "Extend Thinking" component. Extend Thinking includes three sections. The first is titled "Depth of Knowledge." This section is assigned to students, by standard, to help students master concepts through answering higher-level thinking questions. The second section is titled "Inquiry Based Lessons." In this section, students build critical thinking skills through real-world challenges. The third section is titled "Constructed Responses" and provides enrichment and extensions to lessons by having students answer and write explanations to open-ended questions. The variety of tasks and questions provided through the "Extend Thinking" component in the materials allows students to reach both grade-level and above-grade-level proficiency in mathematics TEKS. Grade 6 materials include questions and tasks from K–8 DOK in the "Extended Thinking" section that provide rigorous higher-level thinking opportunities, helping students develop above-grade-level concept development.

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 6 materials provide coherence across concepts horizontally within the grade level by connecting big ideas or patterns on standards-based, real-world problems. For example, in the "Extend Thinking" portion of the Content tab, one of the DOK Challenges for 6.4.G "Identify Equivalent Forms of a Fraction, Decimal, & Percent" involves students conducting a mindfulness survey (journey writing, writing gratitude leaves, noting positive breathing exercises, and mindful movements) of elementary, middle, and high school students. Elementary (Group A) results were recorded as decimals, middle school (Group B) results were recorded as fractions, and high school (Group C) results were recorded as percents. Grade 6 materials provide the Constructed Responses in the "Extend Thinking" portion of the Content tab that demonstrates coherence across concepts horizontally within a grade level. The Constructed Responses assess a student's higher depth of knowledge by connecting patterns, enhancing retention of big ideas, and deepening their understanding of relationships in mathematics. The grade 6 Adaptive Pathway groups all topics under each domain in a dashboard so that the student can understand the connecting patterns and relationships within each domain. The student can practice any topic, even if mastery is already shown, to enhance retention and build a strong foundation. As an example, the "Expressions, Equations, and Relationships" domain has "Represent a Linear Relationship," then "Volume of Rectangular Prisms and Rectangular Pyramids," and "Volume of Triangular Prisms and Triangular Pyramids."

The grade 6 materials demonstrate coherence across concepts horizontally in the IBLs within the Content tab. For example, in the Day 1 portion of the IBL for TEKS 6.5B titled "Licensing a Patent," students revisit the concept of percentages in real-world situations after having practiced identifying equivalent forms of a fraction, decimal, and percent through practices in standard 6.4G lessons.

4.2b – Materials demonstrate coherence vertically across concepts and grade bands, including connections from grades 3–12, by connecting patterns, big ideas, and relationships.

Grade 6 materials demonstrate coherence vertically across concepts and grade bands by connecting skills and standards into larger topics called domains. For example, in the article "Connected Domains,"

found in the Help Articles, it is explained that the elementary domain of "Algebraic Reasoning" has connections to "Expressions, Equations, and Relationships" in middle school.

The grade 6 materials identify skills needed to be successful in the current TEKS using the Skills video within each math topic. These skills connect vertically to prior learning by connecting big ideas and relationships, and they can be directly assigned to students.

The grade 6 materials include prerequisite skills instructional videos in the math topics that are shown to students if they get an incorrect answer on the independent practice for each Topic. The videos demonstrate coherence vertically by connecting patterns and big ideas. For example, in Math Topic 6.3.D "Add, subtract, multiply, and divide integers," when providing an incorrect response, a student is shown a prerequisite skills instructional video about using number lines to represent equations.

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.

Grade 6 materials demonstrate coherence across lessons or activities by connecting students' prior knowledge of concepts to the current and/or future mathematical concepts. An example is found in the Math Levels report in Reports for students who took the "Expressions, Equations, and Relationships" Math Unit Pre-Test. Coherence connections to the unit's concept and mathematical procedures are seen in the students' varying performance math levels of Mid-7th, Late 7th, Early 8th, or Early 6th.

The grade 6 materials demonstrate coherence across lessons by connecting prior knowledge to future grade levels through IBLs in the Contents tab. For example, the "Tour de France" lesson begins with making equivalent ratios to completing a project that requires creating an order using ratios and creating tables, which is required for future grade levels in graphing.

The grade 6 materials demonstrate coherence across lessons or activities. For example, in the "Licensing a Patent" lesson in the "Extended Thinking" portion of the Contents tab, the materials provide a three-day lesson that connects students' prior knowledge of concepts and procedures to ratios and percents across the activities assigned each of the three days.

The grade 6 materials adjust to each student's level to provide work for current and future grade levels. The Adaptive Math pathway component in the materials allows a teacher to assign adaptive practice based on a domain. For example, the unit titled "Expressions, Equations, and Relationships 6–8" allows students to practice grade-level TEKS as well as prepare for future grade 7 and grade 8 TEKS.

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 6 materials provide spaced retrieval opportunities with previously learned skills and concepts across learning pathways. Freckle's Math Topics provide students with Prerequisite Skill assignments and videos to revisit and recall previously learned materials before learning the new concept. For example, when students are assigned the Math Topic 6.5.b "Solve a Problem Involving Parts, Wholes, & Percentages," they are also provided spaced retrieval opportunities, such as the Skill 1 assignment "Recognizing a Percent of a Quantity as a Part Per 100" or Prerequisite Skill 1 video "What % is 15 out of 30?"

In the grade 6 materials, in the Targeted Practice lessons 6.2B and 6.3 C in the Content tab, students use number lines to complete activities, which provides spaced retrieval of the skill using number lines. The grade 6 materials provide spaced retrieval opportunities in Adaptive Math pathway lessons with previously learned skills and concepts. This is evident in the lesson for TEKS 6.10A: "Solving a Problem with Linear Equations"; students must use previously learned skills and concepts, such as 6.3D (Adding, Subtracting, Multiplying, and Dividing Integers).

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

Grade 6 materials provide interleaved practice opportunities with previously learned skills and concepts across learning pathways. Students integrate previously learned skills and concepts and use problem-solving in real-world scenarios, such as those offered in DOK Challenges in the Content tab. The grade 6 materials provide opportunities for interleaved practice by allowing the student to revisit skills not mastered yet in the adaptive platform. For example, students can practice the skill of adding, subtracting, multiplying, and dividing integers in the Adaptive Math pathway in the Content tab with 6.3D, 6.5B, and 6.12C. The grade 6 materials provide interleaved practice opportunities of previously learned skills through teacher-assigned Targeted Practice in the Content tab. For example, students can practice using number lines in 6.2A and 6.2B, and this skill is revisited in 6.9C. Practice opportunities for previously learned skills across learning pathways are provided in the grade 6 materials through their Fact Practice section in the Content tab. For example, a teacher can select "Addition, Subtraction, Multiplication, and Division of Integers" and "Fractions" as the skills to be practiced through one assignment. The grade 6 materials provide interleaved practice opportunities with previously learned skills and concepts across

learning pathways. For example, students are tasked with demonstrating their knowledge on 6.10D: "Solve a Problem Using a One-Step Linear Equation" through the use of interactive real-world scenarios through the IBLs over three days of lessons and activities.

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 mathematical concepts and complex, real-world situations.

Grade 6 materials provide opportunities for students to interpret, analyze, and evaluate concepts and complex, real-world situations. *Freckle's* Extended Thinking IBL, "A Checkup at the Veterinarian," presents concepts and situations for students to apply their conceptual understanding of "Expressions, Equations, and Relationships" with TEKS 6.10A (solve a problem using a one-step linear equation). Students interpret information when asked how heavy the puppy should be at his age. Students analyze complex, real-world situations when they are asked what the puppy's target weight should be at the next checkup and whether this goal was met. Finally, when students are asked to write and solve an equation to represent the puppy's current food intake, they are provided with an opportunity to evaluate a mathematical concept.

The grade 6 materials provide questions and tasks that require students to interpret and analyze mathematical concepts and complex, real-world situations. For example, in the DOK Lesson 6.5B, students interpret a real-world problem about a glassblower and must use mathematical concepts to solve the questions. The student must interpret the information to determine the percentage of vases not broken and analyze and evaluate new proportions to determine how many more vases need to be made.

The questions and tasks in the grade 6 materials provide opportunities for students to interpret, analyze, and evaluate mathematical concepts and complex real-world situations. For example, in the IBL, "Tour de France," students are given a scenario where the bike riding distance is tracked on a table after each hour of riding. Students watch short videos, then are asked to answer questions like "How many kilometers have you traveled after one hour?" to help interpret the information given. Then they are asked, "How many miles do you still have to travel to complete the first stage?" to help students analyze their ratios table. Finally, they are asked, "If you continue at this speed, how long will it take you to complete the entire 3,500 km tour of France?" This provides the opportunity for students to evaluate this real-world situation.

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

Questions and tasks in the grade 6 online materials require students to create representations of mathematical situations, such as in the IBL "A Checkup at the Veterinarian." On Day 2, students are asked to write an equation in the form of $px = q$ as a representation of the amount of cat food a cat should be fed in one week.

In grade 6, the materials provide students with a variety of tools to create concrete models and representations of mathematical situations, including counters and an open number line. For example, in Lesson 5 of "Measurement and Data" in the Standards tab, students can use tools such as a number line to order numbers before finding the mean of a data set.

The grade 6 IBL, "Tour de France," provides questions and task opportunities for students to create models and representations of ratios. In the Day 2 inquiry sheet of the lesson, students are given a ratio scenario that describes traveling at 40 km per hour. Students are asked to model and represent this situation by creating a graphical representation on a coordinate grid. Then, on the inquiry sheet for Day 3 of the lesson, students are given a ratio scenario describing three different bike riders traveling at different speeds. Students are asked to model and represent this situation by creating a table representation.

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

In grade 6, the materials provide students with questions and tasks that require students to apply conceptual understanding to new problem situations and contexts. For example, on Day 1 of the IBL, "Life as a Veterinarian," students must use information to complete a graph, and on Day 2, students create graphs to represent various solutions to a real-world situation. On Day 3, students create questions, find data, and develop graphs to represent their data. The grade 6 materials provide opportunities for students to apply conceptual understanding to new problem situations. For example, in the Day 4 inquiry sheet under the IBL, "Tour de France," students are given a project where they can apply their previously acquired knowledge of representing ratios on tables and graphs. They are given key information to design a bicycle, then asked to create a bicycle and price it accordingly. Since this is the task for Day 4, students are expected to apply their understanding of ratios from the activities on days 1, 2, and 3 to this new situation. The Assign IBL Video description in the IBL in grade 6 materials shows the progression of a 4-day lesson that has the final task of applying conceptual understanding to the project assigned as their closing task for this concept.

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 grade 6 materials provide tasks that are designed to build the fluency necessary to complete grade-level mathematical tasks. The Adaptive Math pathway under the Content tab provides tasks that require students to know when and how to apply strategies to accurately and effectively answer math questions. Educators can assign Adaptive Math pathways by units, such as Number Operations, to allow for a mix of standards for students to practice and build fluency.

Grade 6 materials provide tasks that are designed to build student fluency necessary to complete grade-level mathematical tasks. For example, Freckle's Fact Practice under the "Build the Basics" section within the Content tab provides math fact fluency for all math operations, such as addition, subtraction, multiplication, and division. The grade 6 Freckle materials provide tasks that are designed to build student automaticity and fluency necessary to complete grade-level mathematical tasks. Teachers can assign targeted lessons from the Standards tab to allow students to spiral their warm-up activities and provide repeated opportunities to build student automaticity and fluency. For example, teachers can assign skills from 6.3D "Add, Subtract, Multiply, & Divide Integers" as a warm-up to prepare students for 6.10A "Solve a Problem Using a One-Step Linear Equation."

The grade 6 digital materials are designed to build students' automaticity with the adaptive program. For example, students can complete drills on expressions, equations, and relationships, and the questions adjust in difficulty. Repeated practice and adjusted difficulty build automaticity. The Teacher Home Guide article in the Assignments and Assessments category, "How do students practice focus skills in Math and RLA?" states that the adaptive program provides remediation for struggling students and progresses to more advanced content when they demonstrate proficiency. The article also states that based on Star Data and student performance, students will be assigned focus skills to practice and build fluency. Once mastered, students will have the choice to continue to practice for further review and fluency practice.

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

Grade 6 materials include IBLs that contain warm-up activities and daily reviews that prompt students to solve problems using multiple strategies. These opportunities encourage flexibility and efficiency by allowing students to explore different approaches and share their reasoning with peers.

Educators in grade 6 can assign practice by domain or standard through Targeted Practice, giving students repeated exposure to grade-level expectations. This provides opportunities for students to develop procedural accuracy and efficiency through consistent practice and reinforcement.

The grade 6 Adaptive Math pathway provides immediate feedback during practice, offering hints and step-by-step guides if students answer questions incorrectly, helping students identify errors and try alternative strategies. This real-time guidance supports the development of accurate and flexible problem-solving skills.

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

Grade 6 materials provide opportunities for students to evaluate mathematical representations, models, strategies, and solutions through the Adaptive Math pathway and Targeted Practice. Students work independently within domains and use different methods and models to improve their efficiency and accuracy in problem-solving.

Grade 6 materials include Skills and Prerequisite videos in the Standards tab that educators can assign for independent practice to demonstrate multiple problem-solving strategies. These videos help students evaluate and understand alternative approaches to mathematical tasks, providing opportunities for flexibility.

Grade 6 materials provide IBLs that contain structured discussion prompts that guide students in evaluating peer solutions for accuracy, flexibility, and efficiency. Sentence starters such as "I solved it differently than . . ." and "The way that . . . explained . . ." support reflective thinking and comparison of strategies.

Materials in grade 6 include DOK Challenges that require students to analyze and evaluate mathematical methods and representations. For example, students identify errors in a peer's solution and explain how to correct them, reinforcing their ability to assess the efficiency and accuracy of different approaches.

5.2d – Materials contain guidance to support students in selecting the most efficient approaches when solving mathematics problems.

Grade 6 materials guide students in selecting increasingly efficient approaches through DOK Challenges. The questions present strategies to solve problems in multiple ways, encouraging students to compare strategies and refine their problem-solving methods to select the most efficient approach for solving real-world mathematics problems. For example, in the "Ratios and Rates" DOK Challenge, students are presented with three different ways to analyze data about catching fish, and they are guided with multiple answer choices to determine which method is the best to analyze their data to decide which is the best location to catch fish.

Grade 6 materials include IBLs with structured opportunities for students to share and reflect on different strategies. For example, in the "Licensing a Patent" Day 1 warm-up activity, students are encouraged to solve a mathematical expression containing multiple operations in as many ways as possible. This guides students to select the most efficient approach when solving mathematical problems. At the end of Day 1, after groups have presented their findings and answers about the amount of money students would earn with 20 percent of the total profit their invention gained, the educator is prompted to ask the class, "If you could start over, what would you do differently?" This encourages students to evaluate their peer groups' approaches for efficiency and to select the most efficient approach to solving similar problems in the future.

Grade 6 materials include Skills and Prerequisite videos and guided practice examples with step-by-step support for students to recognize and apply more efficient methods. Hints and walkthroughs embedded in practice activities reinforce this guidance during independent work.

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 emphasis of the TEKS is addressed.	0/2
5.3b	All criteria for guidance met.	3/3
5.3c	Materials do not include supports for students in defining and explaining concrete models to abstract (symbolic/numeric/algorithmic) concepts, as required by the TEKS.	5/6
—	**TOTAL**	8/11

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

Although the TEKS are addressed in the Math Standards tab, Proportionality section, TEKS 6.5B (Solve a problem involving parts, wholes, and percentages), More Resources option, Lesson Overview, the materials do not explicitly state how the conceptual and procedural emphases of the TEKS are addressed. The IMRA evidence guide provides this non-example: "The TEKS are listed at the beginning of each lesson; however, there is no clear link between the content and the specific conceptual or procedural aspects of the TEKS."

Although there is a Math Topics page with a Skills and Prerequisites tab that outlines the Focus Skills and Prerequisite skills students need for success, the materials do not explicitly state how the conceptual and procedural emphasis of the TEKS are addressed. According to the non-examples in the IMRA, "The materials do not explain why or how the conceptual understanding supports 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.

Grade 6 materials include opportunities for students to use abstract models to deepen understanding and problem-solving skills, as seen in the Math Content tab, Constructed Response Prompt Proportionality domain, assessing TEKS 6.5B (Solve a problem involving parts, wholes, and percentages). Students explain the difference between a ratio and a percent. Students then determine which set, either two ratios or two percents, is easier to compare, and explain their reasoning. The materials ask students to explain the steps of turning a ratio into a percent and whether the process changes depending on the type of ratio presented or if the numerator is larger than 100. In grade 6, adaptive materials utilize the progression of concrete, pictorial, and abstract models to deepen students' understanding of mathematical concepts through a variety of questions and tasks. For example, in TEKS 6.5C (Compare fractions, decimals, and percents), Targeted Practice and Skills and Prerequisites questions, students use pictorial representations of shapes, fraction strips, and number lines to engage in mathematical concepts

in multiple ways. The grade 6 materials provide opportunities through their questions and tasks for students to use abstract models as required by the TEKS. In the Math Standards tab for TEKS 6.10A, students are given questions on matching concrete models to the abstract equation.

Grade 6 online adaptive materials contain questions and tasks that provide opportunities for students to use virtual manipulatives to create models or pictorial representations of the lesson concept. For example, the student selects the math button at the top of the student dashboard, selects the Adaptive Math option, and then selects the Proportionality domain to practice. The Draw and Tools virtual manipulatives provide students with opportunities to construct their understanding of the concept.

In grade 6, adaptive materials utilize the progression of pictorial and abstract models to deepen students' understanding of mathematical concepts through a variety of questions and tasks. For example, in the Student Dashboard for "Expressions, Equations, and Relationships" in "Writing Inequalities," the student can use the Teach Me" icon, and a number line is used to review the skill, and the questions and hints focus on equations in word form to practice the skill. Students can also choose to use the number line in Tools as a concrete model.

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.

Grade 6 materials include supports for students in connecting concrete and representational models to abstract concepts as required by the TEKS. For example, under the Math Standards tab, grade 6, Number and Operations domain, TEKS 6.3C "Integer operations using a model," the materials provide students with a concrete number line model with three different arrows placed above the number line representing movement toward the left away from zero. Materials ask students to select a numerical expression (an abstract concept) that matches the model. Grade 6 materials include supports for students in creating representational models to abstract concepts as required by the TEKS. For example, in the Math Content tab, Extend Thinking section, IBLs, grade 6, "Tour de France" activity, students create a representational table model of equivalent ratios and calculate the distance traveled per hour during the first stage of the Tour de France.

The materials in grade 6 include supports for students in defining and explaining representational models to abstract (symbolic/numeric/algorithmic) concepts, as required by the TEKS. In the Visual portion of the Constructed Response for TEKS 6.5B, students are given a blank tape diagram and first asked to label it to represent the ratio word problem given. Then they are asked four questions about the total, sections, and percentages that the diagram represents. The question, "How do you know?" supports students in explaining their answers and defining what each part of the model represents. The Constructed Response is only available for grades 6–9 in *Freckle*.

Grade 6 materials do not include supports for students in defining and explaining concrete models to abstract concepts as required by the TEKS.

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.

Grade 6 online materials provide students with opportunities to develop academic mathematical language using visual and other language development strategies as exemplified in the Math Standards tab, Proportionality domain section, Lesson 6.4F "Model Benchmark Fractions." During the lesson, students select the underlined mathematical term *diagram* to view the definition. Students can also select the text-to-speech feature to hear the definition of the mathematical term. The materials also provide a visual (diagram) representation of a fraction to develop academic mathematical language for the *percent* of the diagram that is shaded.

The sixth grade materials provide opportunities for students to develop academic mathematical language by providing visuals with specific vocabulary and questions that allow students to use the academic vocabulary in their explanations. For example, in Lesson 6.5 A "Ratios and Rates", tables, graphs, and charts are used in the instructional videos to teach students about ratios and rates. In the Constructed Response worksheet, Equivalent Ratios, students use a table to create a graph, then use academic mathematical language to explain what a unit rate is, how to calculate whether ratios are or not equivalent, describe the shape of a line if coordinate pairs are equivalent, and describe what would happen if more values were added to the plane. Each task integrates visuals and allows students to connect mathematical terms and ideas to representations.

The grade 6 materials provide opportunities for students to develop academic mathematical language using visuals. For example, lessons within the Measurement and Data section under the Standards tab provide visuals, such as box-and-whisker plots, with questions about the vocabulary word *median*. The word is underlined and will provide students with the definition if they click on it. Students can apply their understanding to the visual given.

The grade 6 Freckle materials include opportunities for students to develop academic mathematical language using visuals, manipulatives, or other language development strategies. For example, in the instructional video for 6.14.C – "Balance a Check Register," the academic language required for the unit is explained, and how it relates to math, such as relating *withdrawal* to subtraction, *deposit* to addition, and

balance to the total sum of money, through a table to develop the academic mathematical language visually.

The grade 6 materials provide opportunities for students to develop academic mathematical language using visuals. In Targeted Practice, Classifying Types of Numbers (within the Math Content tab), the materials provide students with Venn diagrams that classify types of numbers. Academic language can be developed through the labeling of each circle within the Venn diagram. The vocabulary words provided include whole numbers, integers, and rational numbers.

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.

The grade 6 adaptive program includes embedded scaffolds to support students' use of academic vocabulary in context when communicating with the educator, including a Hint icon provided to students in the Student Dashboard. For example, in the Proportionality lesson, Question 2 asks the student to identify which rules are multiplicative. The hint provided scaffolds the vocabulary by stating that the multiplicative rule uses multiplication. Another example is located in Question 10 from the Proportionality lesson; the hint pop-up creates meaningful context for new academic vocabulary by comparing equivalent ratios to equivalent fractions and providing an example. These hints allow students to accurately communicate the answer with the adaptive program that serves as the educator.

Grade 6 online materials include embedded educator guidance to scaffold and support students' use of academic vocabulary in context when communicating with peers and educators, as exemplified in the Math Content tab, Targeted Math Practice section, "Topic 6.6B Independent & Dependent Values in Equations." Educators use the Math Class Grouping Report to create mixed-level student groups. The mixed-level student grouping allows for various math skill-level student discourse opportunities. The practice provides scaffolds and supports students' use of academic vocabulary in context, such as when students select the mathematical vocabulary words *equation* and *represents* to view definitions. The online materials provide scaffolded student support when students select the text-to-speech accommodation to hear the definition of mathematical vocabulary. Mixed-level student grouping facilitates scaffolded conversations when higher-performing students effectively model vocabulary usage for their lower-performing peers.

The grade 6 materials include embedded educator guidance to scaffold and support students' use of academic vocabulary in context when communicating with the educator in the adaptive program. For example, in the Measurement and Data, Targeted Practice assignment, "Identify Location on a Coordinate Plane," the materials scaffold support through the embedded videos students can watch before answering questions about plotting points on a coordinate grid. The vocabulary words *horizontal*, *vertical*, and *origin* are underlined as a support for students to access a simplified definition before

communicating the answer to the math questions that include the academic vocabulary to the online platform, which represents the educator.

The grade 6 Freckle materials include embedded educator guidance to scaffold, support, and extend students' use of academic mathematical vocabulary in context when communicating with peers and educators. For example, Freckle contains a Constructed Response section prompting students to explain their thought processes using academic mathematical vocabulary. Students can be randomly assigned to groups using the Math Class Grouping Report in the Reports tab, providing scaffolding and support for students to use and hear academic mathematical vocabulary in context when communicating with peers of varying skill levels in their assigned group.

The grade 6 materials include embedded educator guidance to scaffold, support, and extend students' use of academic mathematical vocabulary in context through the Help Article, "What should group work look like during an Inquiry Based Lesson?" The article guides educators on promoting student collaboration and communication, including providing sentence stems for different situations. For example, a sentence stem for disagreeing is "I disagree with . . . because . . .," thus prompting students to use academic mathematical vocabulary in context when communicating with peers and educators. Furthermore, it encourages educators to create anchor charts with stem sentences "I'd like to go back to what . . . said about . . ." and "An example is . . ." to extend students' use of academic mathematical vocabulary in context when communicating with peers and educators.

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

Grade 6 online materials include embedded guidance to support student application of appropriate mathematical language and academic vocabulary in discourse as exemplified in the Math Content tab, Extend Thinking IBL, "Name That Price," that allows students to work in collaborative groups, apply TEKS skills, and solve real-world problems. During the Daily Review slide for Day 1 of the "Name That Price" activity, three to four students share how they solved the expression 1/5 x 30. This supports students' application of appropriate mathematical language and academic vocabulary in discourse, and students continue to work collaboratively and apply their knowledge of the academic vocabulary word *expression* to create expressions that indicate product pricing and which product generates the most revenue.

The grade 6 materials include embedded guidance to support student application of appropriate mathematical language and academic vocabulary in discourse. For example, in the "Name That Price" IBL, slide 4 contains a video and requires the teacher to play it twice, asking clarifying questions in between. In this example, vocabulary words such as *factors*, *less than*, *greater than*, *fraction*, and *discount* are presented in the video and can be used to support student application of appropriate mathematical language and academic vocabulary in oral discourse.

The grade 6 materials include embedded guidance to support student application of appropriate mathematical language and academic vocabulary in discourse through Constructed Response prompts

under the Math Content tab. For example, in the Conceptual portion of the Constructed Response handout for Equivalent Ratios, students use the vocabulary *equivalent* and *equivalent ratios* to answer questions about the process of finding equivalent ratios, using unit ratios, and how using a table can help with understanding the relationship of the ratios. The Help article, "What are Constructed Response prompts? How do you use them?" provides the educator with guidance on how to use the prompts as group work to foster collaboration and discourse.

The grade 6 materials include embedded guidance to support student application of appropriate mathematical language and academic vocabulary in discourse. In the Help article, "How long does an Inquiry Based Lesson take?" the materials describe the structure of incorporating IBLs. Two of the components in the structure include inquiry group work and group presentations. These components support students' application of math language in oral discourse.

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

The grade 6 materials include embedded guidance to facilitate mathematical conversations, allowing students to hear, refine, and use math language with peers. In the Help article, "How long does an Inquiry Based Lesson take?," the materials describe the structure of incorporating IBLs. Two of the components in the structure include inquiry group work and group presentations. The grouping structure would allow students to hear, refine, and use math language with their group members and in whole-group presentations.

The grade 6 materials include embedded guidance to facilitate mathematical conversations, allowing students to hear, refine, and use math language with peers. For example, in the Visual portion of the Constructed Response, Ratios and Rates, under the Content tab, students must use appropriate academic language to have mathematical conversations. In the worksheet, students discuss equivalent ratios regarding the NBA to complete a table, then plot data on a graph. Because the Constructed Response can be completed in group work, this allows students to hear, refine, and use math language with their peers.

The grade 6 materials include embedded guidance to facilitate mathematical conversations, allowing students to hear, refine, and use math language with peers through collaborative group work using the Constructed Responses. For example, in the Conceptual portion of the Constructed Response handout, Equivalent Ratios, students use the vocabulary *equivalent* and *equivalent ratios* to answer questions about the process of finding equivalent ratios, using unit ratios, and how using a table can help with understanding the relationship of the ratios. The Help article, "What are Constructed Response prompts? How do you use them?," provides the educator with guidance on how to use the prompts as group work to foster collaboration and discourse, allowing students to hear, refine, and use math language with their peers.

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.

Grade 6 online adaptive materials include embedded guidance to anticipate a variety of student answers, including exemplar responses to questions and tasks, and guidance to support and/or redirect inaccurate student responses. For example, in the Math Standards tab, grade 6, Proportionality domain, TEKS 6.4A Additive & multiplicative relationships, the adaptive materials include embedded supports such as hints to provide students with on-the-spot guidance regarding the math operations used for additive rules and multiplicative rules. The online materials respond to correct responses with a green checkmark and the statement, "That's correct!" When students select an incorrect response in identifying what type of relationship is formed by the rule $y = 4x$, the embedded support responds with a red X and a statement, "Sorry, that's not correct. Try again!" Students receive a redirecting hint with information about additive and multiplicative rules to model the correct reasoning.

The grade 6 digital platform includes guidance to support and/or redirect inaccurate student responses. The materials provide hints when a student enters an incorrect answer and allow the student to try again. For example, in the Student Dashboard for Expressions, Equations, and Relationships in the Standards tab, a hint explaining open and closed circles is shown in Question 4 when the student answers incorrectly. Also, students will see an instructional video to reteach skills where they did not meet proficiency.

The grade 6 materials include embedded guidance to anticipate a variety of student answers, including exemplar responses to questions and tasks, and guidance to support and/or redirect inaccurate student responses. For example, in the Adaptive Math pathway lesson "Algebraic Reasoning at Your Level" (in the Content tab), students answer proportional reasoning questions. When a student answers a question correctly, the adaptive program notifies the student that the question was answered correctly and provides a green checkmark. The materials also assign a certain number of coins for questions answered correctly. The Help article, "How does the coin system in Freckle work?" describes how the adaptive problem anticipates and rewards students for exemplary responses to questions. In the same lesson, when a student answers a question incorrectly, the adaptive program notifies the student that the answer was wrong, then immediately provides the student with a hint they can use before they try the question again.

The grade 6 materials include embedded guidance to anticipate a variety of student answers, including exemplar responses to questions and tasks, and guidance to support and/or redirect inaccurate student responses. For example, within the Targeted Lesson 6.14.C "Balance a Check Register" (in the Content tab), students must complete a table to demonstrate their understanding of financial literacy. If students are correct, they receive coins, a green checkmark, and a message telling them they were successful. If they answer incorrectly, they get another chance, and then if their answer is still inaccurate, the program provides a hint or video tutorial on how to be successful next time.

The grade 6 materials include guidance to anticipate a variety of student answers, including exemplar responses and questions and tasks in the IBLs. For example, in the IBL "Name That Price," there are solution pages for each day. The solution pages show exemplar responses and possible student responses that enable the educator to anticipate student responses and quickly assess student understanding.

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.

Grade 6 materials integrate TEKS process standards appropriately into the materials. For example, in the Math Content tab, Extend Thinking section, Depth of Knowledge, Topic 6.5A "Ratios & Rates," the process standard 6.1F (analyze mathematical relationships to connect and communicate mathematical ideas) is integrated throughout the activity by asking students to determine the proportion of invasive bullseye snakehead fish found in the lakes and rivers of a national forest. Students determine which body of water—Whisbin's Creek or Berlik Pond—contains the highest proportion of invasive bullseye snakehead fish by analyzing tables and charts.

The TEKS process standards are integrated appropriately into the grade 6 materials. For example, in the IBLs, students apply math concepts to real-world examples. In the IBL, "Name that Price," students learn about price comparison and discounts as they practice multiplying rational numbers. These lessons directly integrate the TEKS process standard 6.1A (apply mathematics to problems arising in everyday life, society, and the workplace).

The TEKS process standards are integrated appropriately into the grade 6 materials. For example, in the IBL, "Tour de France," the Day 2 inquiry sheets ask students to create a coordinate plane graph representing the time and distance on a tour of France. They are also asked to write what questions the students are trying to answer with this graph. This lesson integrates the TEKS process standard 6.1E (create and use representations to organize, record, and communicate mathematical ideas).

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

Although the Math Standards tab provides a list of all the TEKS that are taught throughout the learning pathway in grade 6, the materials do not include a description of how process standards are incorporated and connected throughout the learning pathway.

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

Although the grade 6 materials include an overview of content TEKS and correlating lessons in the Standards tab, they do not include an overview of the TEKS process standards 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.

Grade 6 adaptive online materials provide opportunities for students to think mathematically, persevere through solving problems, and make sense of mathematics, as exemplified in the Math Standards tab, Number and Operations sections, TEKS 6.3C "Integer Operations Using a Model." Materials provide a number line for visual support to help students think mathematically about mathematical expressions and positive and negative integers. Students examine the arrows along the number line to determine if the integers are positive or negative, then select an expression that demonstrates the context in the number line model. When students select an incorrect answer, the online adaptive materials provide a hint containing information for students to consider when solving the problem. The just-in-time hint provides students with the support they need to persevere as they learn by using the placement of the arrows on the number line to determine if the integers are positive or negative. To make sense of mathematics, students use visual objects, such as arrows and rectangular blocks, above the number line to match the correct real-world situation and expression that the visuals represent.

The grade 6 materials provide opportunities for students to think mathematically, persevere through solving problems, and make sense of mathematics by having students solve problems in a variety of ways. For example, in the Constructed Response handouts 6.RP.3C, "Solve a problem involving parts, wholes, & percentages," students can complete worksheets that are conceptual, situational, and visual, so they are exposed to multiple types of problems and levels of questions. In the Conceptual worksheet, questions such as, "What is the difference between a ratio and a percent?" are open-ended and provide opportunities for students to think mathematically. In the Situational worksheet of the Constructed Response, students are presented with real-world scenarios that include multiple questions, each building in rigor. For example, "What percentage of the top 30 songs are pop songs? Because the questions are scaffolded in rigor, there are opportunities for students to persevere through solving problems. In the Visual worksheet of the Constructed Response, students use a tape diagram and a real-world scenario to respond to questions about percentages and representations, providing them with the opportunity to make sense of mathematics.

The grade 6 materials provide opportunities for students to think mathematically and persevere through solving problems. For example, on Day 1 of the IBL, "Tour de France," on equivalent ratios, students are given a scenario where the bike-riding distance is to be tracked on a table after each hour. Students watch short videos before answering questions, such as, "How many kilometers have you traveled after one hour?" to help students interpret the given information. Students are then asked, "How many miles do you still have to travel to complete the first stage?" to help students analyze their ratios table. Finally, they are asked, "If you continue at this speed, how long will it take you to complete the entire 3,500 km tour of France?" These prompts serve as opportunities for students to think mathematically and persevere through the use of chunking information to solve problems. The tables and graphs within the lesson provide students with the opportunity to make sense of mathematics as they compare the distances traveled to their visual representations.

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

Grade 6 online materials support students in understanding, explaining, and justifying that there can be multiple ways to solve problems and complete tasks. In the Proportionality Constructed Response, Conceptual portion, the materials support students in understanding and explaining the steps they would take to turn a ratio into a percent, and justifying whether comparing two ratios or two percentages is easier.

The materials in grade 6 support students in understanding, explaining, and justifying that there can be multiple ways to solve problems and complete tasks. On the Daily Review slides at the beginning of the Day 1 slide presentation (Daily Review) of the IBL, "Licensing a Patent," students are asked to "Solve the expression below (in your head) in as many different ways as possible. 15 + 8 x 2 - 6." Then, the materials direct the teacher to select three–four students to share how they solved the problem. As students listen to their peers explain and justify how they solved the expression in their head, they can understand that there can be multiple ways to solve problems.

In the IBLs in grade 6, materials support students in understanding, explaining, and justifying that there can be multiple ways to solve problems and complete tasks. For example, on the Group Spokesperson slide at the end of Day 3 of the "Licensing a Patent" IBL, students explain how they arrived at their solution and participate in a class discussion using sentence stems such as "I solved it differently than . . . because . . ." and "The way that . . . explained the solution caused me to change my thinking because . . ."

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.

The grade 6 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. For

example, in the IBL, "Licensing a Patent," students must work through a variety of real-world situations to calculate the percentages of earnings they will receive based on the company sales of their patent and the royalty rates, while writing justifications, explaining their reasoning, and discussing the mathematics that are involved with peers. Upon conclusion of the 3-day lesson, student groups are asked to present their findings, providing multiple opportunities for students to hear how different teams solved the problems within the activity, facilitating further discussions about math with peers and/or educators.

Materials in grade 6 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 as exemplified in the Math Content tab, Extend Thinking section, Constructed Responses, Proportionality domain, TEKS 6.5B Solving a problem involving parts, wholes, and percentages, Conceptual Constructed Response category. Student groups work collaboratively to do, discuss, and write about math with peers while answering prompt questions such as, "What is the difference between a ratio and a percent?" or "Explain the steps you would take to turn a ratio into a percent."

Grade 6 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, as discussed in the article from the Math Practice Program Content section of the Help Articles, "What are Constructed Response prompts? How do you use them?" The article states that Constructed Response prompts are utilized in a variety of classroom settings, including group work: "Constructed Response prompts allow teachers to assess student understanding of a given concept . . . Constructed Response prompts have myriad uses in the classroom, including . . . Groupwork - the prompts are a great way to foster collaboration as students work together on . . . problems." This type of classroom setting facilitates doing math, writing about math, and discussing math with peers and/or educators.

6.2 Facilitating Productive Struggle

GUIDANCE	SCORE SUMMARY	RAW SCORE
6.2a	Materials do not support educators in guiding students to share and reflect on their problem-solving approaches, including multiple points of entry.	6/8
6.2b	All criteria for guidance met.	4/4
—	**TOTAL**	10/12

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

The materials in grade 6 include a group sharing model in IBLs where one group presents their solution and explains how they arrived at it. In the IBL "Licensing a Patent," students present their thinking during the Group Spokesperson Presents Solution section, followed by a class discussion using sentence starters such as "I agree with . . . because . . . " and "The way that . . . explained the solution caused me to change my thinking because . . .," which support students in articulating and defending their reasoning.

The Group Spokesperson Presents Solution section of the IBL slideshow prompts students to explain their thinking and respond to peer strategies. These discussions provide opportunities for students to share explanations, make arguments, and justify their solutions in a collaborative setting.

Reflection questions at the end of each IBL slideshow guide students to think critically about their own problem-solving process. Prompts such as "What did you do best at during today's inquiry?" and "If you could start over, what would you do differently?" help students explain and justify their approaches while considering alternative strategies.

Grade 6 materials do not support educators in guiding students to share and reflect on their problem-solving approaches, including multiple points of entry.

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

The Student Dashboard in grade 6 provides embedded prompts and guidance that respond directly to student answers. When a student selects an incorrect response, the app offers hints, step-by-step videos, and reteach options to help students understand the concept and correct their thinking. For example, in the lesson 6.8.D "Determining the Missing Dimension," after a student incorrectly sorts various volume expressions into three different volume amounts, a pop-out hint appears with a visual to review multiplying the length, width, and height to calculate the volume of a solid. When the student incorrectly sorts the expression a second time, a 57-minute tutorial video pops out to guide the student in calculating the volume of a solid.

The Guided Practice feature in grade 6 presents worked examples that break down problems into manageable steps. These examples help students build confidence and learn how to approach similar problems, offering explanatory feedback based on their responses.

The materials in grade 6 anticipate common misconceptions and provide targeted support. For example, in lesson 6.8.B "Justify Area Formulas," when students incorrectly answer a question about the formula for the area of a triangle, a hint immediately pops out from the right side of the screen stating, "Remember, the area (A) of a triangle equals base (b) multiplied by height (h) divided by 2!" to support educators in providing explanatory feedback based on the incorrect response, and guides students toward accurate reasoning.

Freckle includes visual cues and icons that offer immediate support. Students in grade 6 can click on a light bulb for hints, a question mark for guided practice, or a video camera for skill videos. These tools provide feedback based on both student responses and anticipated misconceptions, helping students view mistakes as learning opportunities.