Discovery Education, Inc.

Supplemental English Mathematics, 4
DreamBox Math for Texas–Grade 4

MATERIAL TYPE	ISBN	FORMAT	ADAPTIVE/STATIC
Supplemental	**9781607117629000**	**Digital**	**Adaptive**

Rating Overview

TEKS SCORE	TEKS BREAKOUTS ATTEMPTED	ERROR CORRECTIONS (IMRA Reviewers)	SUITABILITY NONCOMPLIANCE	SUITABILITY EXCELLENCE	PUBLIC FEEDBACK (COUNT)
100%	37	2	Flags Not in Report	Not Applicable	0

Quality Rubric Section

RUBRIC SECTION	RAW SCORE	PERCENTAGE
1. Intentional Instructional Design	20 out of 21	95%
2. Progress Monitoring	18 out of 23	78%
3. Supports for All Learners	32 out of 37	86%
4. Depth and Coherence of Key Concepts	16 out of 16	100%
5. Balance of Conceptual and Procedural Understanding	36 out of 38	95%
6. Productive Struggle	19 out of 19	100%

Breakdown by Suitability Noncompliance and Excellence Categories

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

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

IMRA Quality Report

1. Intentional Instructional Design

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

1.1 Course-Level Design

GUIDANCE	SCORE SUMMARY	RAW SCORE
1.1a	All criteria for guidance met.	5/5
1.1b	All criteria for guidance met.	3/3
1.1c	All criteria for guidance met.	2/2
1.1d	The materials do not contain guidance for unit internalization.	1/2
1.1e	All criteria for guidance met.	2/2
—	**TOTAL**	13/14

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 materials on the Reviewer Site include a section explaining support for all language learners. While the materials provide general strategies to assist emergent bilingual students (EBs), they do not explicitly reference or align with the English Language Proficiency Standards (ELPS). For instance, in grade 4 "Algebraic Reasoning," four of the Texas Essential Knowledge and Skills (TEKS) are covered in 39 lessons. The TEKS covered include 4.5.A, 4.5.B, 4.5.C, and 4.5.D, and the Teacher Narrative identifies the corresponding TEKS.

The materials also include a *TEKS Correlation Guide*, intended to help educators locate the alignment between *DreamBox Math* lessons and state standards.

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

DreamBox Math fully provides Just-In-Time support and effective progress monitoring tools, as outlined in the *Texas Reviewers Guide*, along with tools for data and progress monitoring.

The Educator Resources tab, accessible from the Reviewer Site, provides a variety of implementation resources. These include guides tailored for administrators and teachers and access to the *DreamBox* Launchpad assessment. Under the Resources tab, educators can also find tools for progress monitoring, which includes guidance for monitoring student progress and generating key reports to support small-group instruction, whole-class teaching, and intervention strategies.

Additionally, the materials feature an "Implementing *DreamBox*" section, which offers guidance on classroom integration.

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

While the materials do not include an accessible *TEKS Correlation Guide*, they do provide a diagnostic assessment, Launchpad, which helps place students on a personalized learning pathway based on their individual performance. The Launchpad assessment can be accessed through the student platform once it is enabled by a school administrator or district.

The *DreamBox Math* Toolkit further supports educators by offering tools and guidance for adjusting a student's initial placement. This allows teachers to manually modify a student's learning pathway based on assessment data and unique student needs, offering flexibility in instructional planning.

To support implementation, *DreamBox Math* provides various guides and resources for teachers and administrators, including the *Teacher Guide: Getting Started with Launchpad*, which explains how students are offered recommended lessons across multiple mathematical domains to support a personalized learning experience.

The materials also include an "Implementing *DreamBox*" section under the Resources tab. Within this section, the resource titled "Using *DreamBox* for MTSS" provides educators with information on integrating *DreamBox Math* into a Multi-Tiered System of Supports (MTSS) framework, which can assist with differentiated instruction and student support planning. However, alignment to the TEKS is not evident. The *Teacher Guide* and the assessment reports do not reference the TEKS. There is no evidence that assessment results are aligned to state standards. Additionally, although there is a link to the *TEKS Correlation Guide* under the Instructional Design tab on the Reviewer Site, the link leads to an "Access Denied" message, making the guide inaccessible for review.

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

The materials provide lesson guidance through the curriculum navigation platform, specifically accessible via the *Curriculum Guide* under the TEKS, "Grade 4–Number and Operations." Teachers can view all standards and select specific TEKS, such as 4.2G, to access corresponding lessons. For example, under TEKS 4.4A, educators can explore all related lessons, as well as specific instructional content offering targeted practice aligned to that standard.

Within the Educator Access site, the Curriculum tab organizes lessons and activities under each of the TEKS, clearly indicating the number of lessons available for each standard. For instance, TEKS 4.4A includes 22 lessons. This structure helps teachers better understand the instructional depth provided and supports the internalization of lesson content aligned to each standard.

The Educator Resources tab on the Reviewer site includes an Implementation Toolkit. This toolkit features a "How to Access *DreamBox* University" page, which provides asynchronous professional learning opportunities for educators. These self-paced modules offer guidance on both the curriculum and implementation strategies. However, because *DreamBox Math* is an individualized, adaptive learning program, there does not appear to be unit internalization resources that support teachers in planning or delivering lessons in a traditional unit-based format.

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

The *DreamBox Math* instructional materials provide comprehensive support for educators and administrators through various resources in *DreamBox Math*. The *Texas Reviewers Guide* and the Educator Resources tab offer detailed implementation guidance, including tools for both administrators and teachers. One provided resource is the Implementation Toolkit, which includes a variety of tools, such as system requirements, strategies for introducing *DreamBox Math* to teachers, and resources for parent communication.

Under the Resources tab, the materials also include a section on "Implementing *DreamBox*," which houses the Administrator Toolkit. It also features a 15-minute instructional leader micro-training, which provides targeted professional development for leaders. For administrators, there is a *Launchpad Guide* offering specific guidance for instructional leaders. In addition to the *Launchpad Guide*, *DreamBox* provides the *Back to School: DreamBox Administrator Guide*, which outlines a recommended timeline for technical set-up and professional development tasks. The guide encourages instructional leaders to share online learning and implementation resources with staff, which are accessible through the Educator Dashboard.

1.2 Lesson-Level Design

GUIDANCE	SCORE SUMMARY	RAW SCORE
1.2a	This guidance is not applicable to the program.	N/A
1.2b	All criteria for guidance met.	5/5
1.2c	All criteria for guidance met.	2/2
—	**TOTAL**	7/7

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

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

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

The materials provide multiple tools and features to support standards-based instruction and assessment. Through the Educator Login, teachers can access Reports to view lesson objectives and assessment data by selecting individual students and navigating to the Standards tab. There is also an option to view class-wide performance under "All Students," where standards-based assessment data is available. Teachers can assign specific lessons using the *Correlation Guide*, but currently, the link to this guide leads to a placeholder page labeled "Coming Soon."

On the Teacher access site, the Curriculum tab organizes lesson videos by the Texas Essential Knowledge and Skills (TEKS) and grade level, allowing educators to preview videos, present them to the class, and assign learning pathways or activities aligned with specific TEKS.

The Administrator Toolkit, found under the Resources tab, includes a section titled "Resources and Training Materials for Teachers," which contains an article "The *DreamBox Math* Launchpad Assessment." According to this article, the assessment takes approximately 15–45 minutes to complete and evaluates students across mathematical domains. Based on results, Launchpad places students on personalized learning paths aligned with the TEKS. These lessons are aligned to the English Language Proficiency Standards (ELPS) and are included in the detailed overview of the lessons.

In the Student view, a pop-up recommends that students complete five lessons per week, encouraging consistent engagement. Lessons are grouped by topic, and the TEKS are explicitly stated and directly correlated to individual lessons within the student interface. Students can track their progress in the Achievements tab, which displays completed lessons and topics.

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

When logged in using Educator credentials, the materials provide a "Parent Introduction Letter" in both English and Spanish, which introduces *DreamBox Math* and outlines the steps to set up the Family Insight Dashboard. Accompanying parent videos are also available in both languages. Additionally, under the "Student and Parent Resources" section in the Resources tab, these letters are accessible and aim to help families get started with the program.

On the Reviewer Site, the Parent Dashboard allows families to explore *DreamBox Math* using the provided login credentials. Within the dashboard, families can view the units their child is working on, see the corresponding TEKS, and access information related to those standards.

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	All criteria for guidance met.	2/2
2.1b	All criteria for guidance met.	2/2
2.1c	The materials do not contain printable versions of digital assessments, content and language supports, and calculators that educators can enable or disable to support individual students.	1/4
2.1d	All criteria for guidance met.	4/4
2.1e	All criteria for guidance met.	4/4
—	**TOTAL**	13/16

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

The *DreamBox* Reviewer Site includes an Instructional Assessments tab. Launchpad is an in-platform assessment that determines students' initial placement within the *DreamBox Math* curriculum and sets the baseline for the "Growth Report." The section states that Launchpad allows for the learning to be student-driven and continuously responsive by creating the student's Lesson Chooser immediately upon completion of Launchpad. As students work through Launchpad tasks, the program evaluates their strengths and places them on a personalized, adaptive learning path for each domain in *DreamBox Math*.

The materials include information on how it uses continuous formative assessment under the Instructional Assessments tab on the Reviewer Site. It explains the definition of formative assessment, and its purpose: "...provides immediate insights into student thinking around key mathematical concepts..."

When accessing the teacher version of *DreamBox Math*, there is a Resources tab that takes us to a *Progress Monitoring with DreamBox* document. This provides detailed instructions on how to monitor progress and use the initial and formative assessments to make instructional decisions for the class/students. For example, it states "Assignments can be used to introduce or reinforce concepts, fill learning gaps, and prepare for assessments." This provides the purpose of the continuous formative assessments that are embedded in the adaptive games.

DreamBox Math provides the purpose of continuous formative assessment to place and keep students in their optimal learning zone—the "Just Right" level where they learn most effectively. A teacher resource article titled "*DreamBox Math*: Continuous Assessment and Adaptivity" on the About *DreamBox Math*

webpage states, "Students who consistently play and complete more *DreamBox Math* lessons each week are more likely to help quickly identify and stay in their optimal learning zone."

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

The material includes a *Teacher Guide: Getting Started with Launchpad* document. This document describes system requirements, how to get students started and monitor their progress, as well as explaining the "Growth Report" and the variables that it takes into consideration. It also mentions that students would need anywhere from 15–45 minutes to complete this initial assessment and that it can be paused and resumed without losing progress.

The Instructional Assessments tab from the Reviewer Site includes information on continuous formative assessments that are embedded in the platform that the students will use to complete activities. It states that the interactive items in varying complexity levels evaluate the strategies used by the student to solve problems. "Just In Time" supports are also available, and the more the student engages with the platform, the more personalized the learning becomes.

The Resources and Training Materials for Teachers portion includes an article, "The *DreamBox Math* Launchpad Assessment." The article provides guidance to ensure students have the time, headphones, and language settings for their assessment, allowing for accuracy of the assessment.

The materials emphasize consistent play to support individualized learning. Consistent play means students complete at least one or two lessons each time they log in. This ongoing engagement allows *DreamBox Math* to gather the necessary data to tailor each student's learning path.

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.

The online practice component supports diverse learner needs through the inclusion of a text-to-speech feature, which can be enabled or disabled to accommodate individual student preferences and accessibility requirements. Assessments are only available in digital form, and printable versions are not provided.

When accessing the Reviewer Site, there is a Learn More button that has information on how the teacher can change the interface language setting for individual students or the whole class from the Educator Dashboard. This setting changes the display language only and does not provide content or language supports that can be enabled or disabled. The platform does include text-to-speech capabilities embedded in the activities.

The teacher resource article, "*DreamBox Math* Educator Dashboard: Change Student Language (Teachers)," on the Educator Resources: Math webpage states teachers can adjust the language settings for the entire class or for specific students. However, support is not provided on how to enable or disable content and language supports.

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

The grade 4 Launchpad experience video shows multiple question types being presented to the students, including equation builder, drag and drop, fraction model builder, and text entry. This video reflects what is seen for the grade band 3–5.

In the initial diagnostic assessment found through the "Reviewer Site Instructional Assessments" section, there are examples of recall and basic application types items that students encounter, as well as TEKS-aligned tasks that offer multiple levels of complexity, satisfying both criteria for having at least two and more than two levels of complexity.

The Instructional Assessments within the *DreamBox Math* webpage states, "Aligned with the TEKS and including interactive item types of varying complexity levels, Launchpad uses the same virtual manipulatives and engaging experience as the rest of *DreamBox*—and students do not even know they are being assessed!"

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

The Reviewer Site provides insight into STAAR (State of Texas Assessments of Academic Readiness)-Aligned Assessment Features. The materials explicitly state that the assessment provides "practice with interactive item types, like drag-and-drop, graphing, and equation editors."

Formative assessments include questions with two levels of complexity, including recall and conceptual understanding. According to the materials, "As students explore concepts and discover structures and relationships on their path to procedural fluency, *DreamBox Math* continually evaluates their actions in each task to adapt and provide the appropriate level of challenge." The materials provide formative assessments through the Lesson Chooser that is created based on the Launchpad results and the assignments educators can assign.

2.2 Data Analysis and Progress Monitoring

GUIDANCE	SCORE SUMMARY	RAW SCORE
2.2a	The materials do not contain insight into why answers were correct or incorrect.	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.

The Teacher Login site provides an "Alerts and Achievements" section on the Home page. This shows which students who have Standards Completed, Lesson Groups Completed, and May Need Attention. When clicking to see the students who need attention, the teacher is able to view their activity to see which lessons were completed with demonstrated understanding and which ones were completed without understanding; however, there is no key showing which items the students answered correctly and which ones they got wrong. The teacher is able to access and play the activity but cannot see the rationale for each correct and incorrect response.

The *DreamBox* Insight Dashboard includes "Lesson Highlights," which gives a detailed view of a student's performance within a lesson. Teachers can see the questions asked, the student's responses, and the feedback provided by *DreamBox Math*. Visual indicators in the "Lesson Highlights" help track progress, such as green check marks showing completed tasks, orange check marks indicating productive struggle, and a red "X" marking incomplete tasks.

The materials provide educators with an "Activity Feed Report" under the Report tab of the Educator Login. When viewing this report, educators can see what activities students have been working on, their level of understanding of the lesson, and play the lessons themselves. When playing the lesson that a grade 4 student was on ("Division by Modeling Partial Quotients: Remainders Expressed as a Fraction of the Divisor"), the educator could experience the feedback the student would have received when answering correctly and incorrectly; however, the materials do not provide a rationale for the educator about why answers are correct or incorrect.

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

The materials provide lesson recommendations for each student when their name is clicked on in the "Student Usage" section. There are lesson suggestions from five domains. When a domain is clicked, educators can see Lesson Groups that *DreamBox Math* recommends. After clicking on these lesson groups, educators can see the student's proficiency in that Lesson Group, and the Texas Essential Knowledge and Skills (TEKS) it will cover, as well as the one to two activities that the student can choose from at the current moment.

The student's "Standards Report" allows teachers to assign specific *DreamBox Math* lessons, which appear in the student's Lesson Chooser. Students can have up to two assignments at a time. Short-Term Assignments are useful for introducing or reviewing a topic, and Long-Term Assignments help students build skills and track progress over time.

On the *DreamBox Math* Insight Dashboard, teachers can click on a Lesson Group to view a student's progress and proficiency on those TEKS. The dashboard also shows which other students are working on or ready to work on the same Lesson Group, helping teachers identify opportunities for small-group instruction.

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

The How 3rd–8th Grade Students Track Their Progress in *DreamBox Math* webpage explains how students can monitor their learning over time by viewing weekly lesson goals, progress stats, and achievements. When students complete their goal of five lessons in a week, they begin a Week Streak, which grows with each consecutive successful week. They can also see how many lessons they have completed, time spent learning, and their longest streak.

The Teacher Login site provides a Lesson Insight Dashboard. This shows the activity and progress of individual students, including "Alerts" for those that are completing lessons without demonstrated understanding. Teachers can also see the amount of time spent by the student on each activity.

When an educator logs in, the Home screen shows a "Currently Playing" section with a View Standards Report button. The materials then show the mastery of each student on each of the TEKS from grade K to Algebra. The "Standards Report" denotes students who are proficient in a standard with a filled-in green circle and students who are in-progress with a standard with a half-filled in blue circle. It also provides teachers with a number of proficient and in progress students for each of the TEKS.

The *DreamBox Math*: The Growth Report (Educators) webpage provides guidance for teachers on using the "Growth Report" to monitor student progress and curriculum placement over time. For example, the "Grade Level Standing" graph shows where students are working relative to their rostered grade level,

with students categorized as: Below Grade Level—addressing learning gaps; Near Grade Level—learning and practicing concepts at or near their grade level; or At/Above Grade Level—working on lessons at or beyond their current grade.

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.

Within the Reviewer Site, information is provided on how *DreamBox Math* constantly assesses and adapts to student performance. The more a student plays and engages with the content, the better it is adapted to their individual needs and performance. One of the Frequently Asked Questions (FAQs) explains how a student may have to play a particular activity several times since they are not demonstrating proficiency and how the items will adapt to present the content in different ways until the student is able to show understanding.

When logged in as an educator, under the Resource tab, the resource The *DreamBox* Difference—grades 3–5 video shows educators how the materials provide frequent checks for understanding throughout the lesson. It also shows how the materials adapt based on how the students answer the checks for understanding.

On the Reviewer Site under the section entitled "How it Works," the materials provide a subsection "Intelligent Adaptivity." In this section, the materials present a flow chart on how the program responds to students' work. It states that "As the student plays, continuous formative assessment captures insights in real time."

The student Activity Feed gives teachers valuable insight into each student's progress and understanding. It indicates whether a lesson was completed with demonstrated understanding, completed with proficiency, or if the student may need attention, such as being unsuccessful on a lesson twice, demonstrating lack of understanding. It also notifies the teacher if the student paused the lesson, helping identify potential learning gaps or areas that may need support.

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	All criteria for guidance met.	4/4
3.1c	All criteria for guidance met.	2/2
3.1d	The materials do not contain accommodations, such as content and language supports and calculators that can be enabled and disabled.	1/3
3.1e	All criteria for guidance met.	2/2
—	**TOTAL**	10/12

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.

Within the *DreamBox* Reviewer Site, The *DreamBox* Difference, states that "with intelligently adaptive, engaging, and scaffolded lessons that adjust in real time, *DreamBox* differentiates learning to meet students where they are, building confidence and skills at their own pace." This allows the program to adjust lessons and activities for students who have not yet reached proficiency with a concept or skill.

The online program features a lightbulb button that students can click to receive hints. These hints are adaptive, responding to the student's answers and providing support that is tailored to the specific problem and the student's current level of understanding. For example, in the game "Converting Hours to Minutes," the hints guide students by offering reminders such as, "Remember that one hour contains 60 minutes," and strategic suggestions like, "It may help you to rotate the minute hand fully around the clock and consider carefully how it affects the hour hand." If no additional guidance is available, the system simply states, "You have no new hints."

The *Using DreamBox for Multi-Tiered System of Supports (MTSS)* document provided as a Resource for educators lays out the various tools and strategies that teachers can adopt to support students who are not yet showing grade-level proficiency in the standards. The instructional strategies listed include personalizing and creating assignments, lessons recommendations/highlights, and using the reports feature in the Educator Dashboard. The document also provides guidance on how to use the "Growth Reports" to target instruction for struggling students as well as the in-lesson guided prompts students see in their personalized learning pathways.

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 materials include resources, such as anchor charts, to support instruction and reinforce key concepts. For example, in the "Showing Fractions on a Number Line" *Teacher Guide*, the "Activity Preparation" section instructs the teacher to prepare a "Fractions" anchor chart. The chart is intended to support key vocabulary development, including terms such as numerator, denominator, unit fraction, equal parts, and unequal parts. At the end of the lesson, the teacher is directed to add new fraction information to the anchor chart, reinforcing and building upon students' learning.

Within the Texas Reviewer Resource, *How to Use DreamBox Math Assignments Effectively*, there are suggestions of when to use assignments. In the section "For Intervention," the materials suggest, "Before introducing the new topic to the class, create an assignment for the students who need to review or practice earlier conceptual work. This will help build their prior knowledge ahead of time so they will feel more confident when exploring the new concept." This will help to pre-teach both academic vocabulary that will be used, as well as unfamiliar references in the text. There is also a *Glossary of Mathematical Terms* document under the "Student and Parent Resources" section. This can be accessed and used by the educator to pre-teach specific terms to students and develop their math vocabulary. This resource includes vocabulary in multiple languages, including Arabic, Chinese, French, etc.

When logging in using the Teacher Login, the "Just Started" lesson demonstrates embedded vocabulary support in the form of the light bulb icon. The voice prompter tells the student what they are expected to do for the task. If they select an incorrect answer, the program prompts them to keep trying. If the student clicks on the light bulb icon or the question mark icon, they are provided with hints, or the task is phrased in a different way to help them understand and attempt the activity. Students may also turn on Closed Captioning to help their understanding of the activity.

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.

DreamBox Math Activity Hub, an online platform that offers additional content and activities to extend student learning. "*DreamBox* challenges advanced learners with learning opportunities that build higher-order thinking skills through complex problem-solving, adaptive acceleration through dynamic skill progression, and STEM connections through real-world applications." The materials provide enrichment opportunities through resources available in one such activity, titled "Prominent Individuals: STEM," which invites students to research a well-known professional from the Science, Technology, Engineering, and Mathematics (STEM) field. Students complete research and writing prompts and create a profile to present their selected individual to the class. A sample list of prominent mathematicians, scientists, and technologists is provided. The activity includes various presentation options, such as performing in

character with props and scenery or creating a visual display that highlights the individual's life and contributions.

The online materials automatically provide advanced learning paths for the students who show mastery on their current grade level skills. This is explained in the Implementation Toolkit article "Students Working in Multiple Grade Levels in *DreamBox Math*" by the following quote: "For example, a student who understands place value but has difficulty counting items in groups may be assigned earlier work that nurtures the ability to count in groups while simultaneously working on higher grade-level lessons that build upon their place value knowledge."

The *DreamBox* Reviewer Site contains a section called "How It Works." This page consists of three tabs: Program Components, User Experience, and Intelligent Adaptability. These pages lay out how the adaptive program responds to student engagement and adapts lessons and activities to meet the needs of the student. The Intelligent Adaptability page has an image of a flowchart that details the process, and the steps students go through. The User Experience page talks about how teachers can extend learning by personalizing assignments and goals for students who are showing grade level proficiency. These resources allow the teacher to extend the students' learning as they demonstrate understanding and proficiency at grade level tasks.

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.

The *DreamBox* Insight Dashboard, accessed through the Teacher Login, has an *Accessibility Statement* under the Resources tab. According to this document, *DreamBox* strives to meet the Web Content Accessibility Guidelines at the AA level, which is the standard required by the Texas Education Agency (TEA).

In the Texas Reviewers Site, "Supports for All Learners, Differentiation and Scaffolds," "optional point-of-use supports such as embedded hints, help, and instructions that can be replayed, as well as the option to turn on audio and captions, enable students to further personalize their learning experience." It includes built-in text-to-speech support available to all students. This accommodation is automatically accessible and does not require teacher activation or control. Students can click on the speaker icon to have content read aloud and have the option to choose from four different narration voices within the game's settings.

DreamBox Math does provide certain tools and resources, including online Teacher Tools that can be used with interactive whiteboards or projectors. These tools are designed to enhance whole-class instruction and support the development of computation strategies.

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 materials include opportunities for students to reflect on and demonstrate their understanding of mathematical concepts through a Math Journal, which is available in the *DreamBox* Activity Hub. The journal prompts include: "Describe what you have done recently in *DreamBox*," "What math lesson or game has been most challenging to figure out? What makes it challenging?", "Describe a lesson in *DreamBox* you recently completed with success," "Explain how one of the lessons in *DreamBox* helps you during math time in your classroom," and "Draw a picture showing a lesson or game in *DreamBox* you are trying to figure out."

Within the Lesson Design tab, *DreamBox Math* provides information on how its lessons are grouped into three categories: namely, "Exploration and Sense Making," "Looking for Structure and Relationships," and "Fluency, Application, and Procedural Skills." Mathematical process standards are also incorporated into the activities to build problem solving, reasoning, and communication skills, allowing students to demonstrate their understanding in different ways.

Also under the Instructional Design tab of the Reviewer Site, the materials provide a *Process Standards Alignment* guide. This document outlines how the *DreamBox Math* activities are aligned to the process standards that require students to perform, express, and represent their mathematical understanding.

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.

"*DreamBox* University" is a resource available to teachers through their Educator Dashboard site. In the grade 4 lesson, "Multiplication Mixed Strategies," the materials help students to connect strategies by having "students apply strategies related to fact family, doubling, and halving of factors to determine the product. Understanding the action taken upon one factor will be the opposite action taken upon the other factor to get equivalent products." The video helps educators anchor big ideas around multiplication and connect patterns, features, and relationships.

Within the Curriculum tab for Texas Essential Knowledge and Skills (TEKS) 4.4A (Teacher Login site), several documents support the teacher in the form of lesson narratives and teacher resources. In the "Adding Whole Numbers Using the Standard Algorithm" lesson, Focus Strategies are listed first, such as "Think Aloud" and "Think-Pair-Share." These methods help educators make their thinking visible while encouraging students to share their reasoning with peers. The lesson begins with a warm-up, which activates students' prior knowledge of addition. The introduction instructs the teacher to tell students that they will be working on a series of connected addition problems, and the focus will be on the standard algorithm strategy. The script includes prompts where the teacher asks students to explain how they used the standard algorithm to visualize and solve the equation, with opportunities for students to share their thinking with a partner and the class. The lesson closing has the teacher praising the students for their hard work and instructing students to reflect on their learning and share it with a partner.

The materials provide explicit guidance for educators to activate prior knowledge. In the grade 4 "Classifying Two-Dimensional Figures—Lesson 3" *Teacher Guide*, the Warm-Up suggests that the teacher begin with a quick review of two-dimensional shapes. Educators are prompted to ask students to name different shapes they know and identify if they have any parallel or perpendicular lines.

The materials include explicit prompts for teachers to highlight key patterns and relationships through multiple means of representation. In the grade 4 "Exploring Number Patterns with Expressions" *Teacher*

Guide, the teacher begins by introducing the concept of patterns as sequences that follow specific rules, asking, "If we begin with the number 2 and add 3 each time, what do you think the first five numbers in our pattern will be?" The lesson then guides students to examine number sequences and match them to input-output tables, with the teacher prompting discussion through questions such as, "What do you notice about these number sequences?" To conclude the lesson, students are encouraged to reflect on their learning by responding to prompts such as, "What is important to pay attention to in number sequences?" or "How do we represent number sequences using rules?"

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.

The materials include multi-tiered intervention methods and educator guidance to support effective implementation. The "Growth Report," updated nightly, provides insights into student progress that the whole class or individual students can view. Using the Group View, educators can use this data to track progress, identify focus areas, and form small groups by sorting students into Below, Near, or At/Above rostered grade levels. As students grow throughout the year, the data updates to reflect changes, helping teachers identify those performing below the classroom average across multiple mathematical domains. This allows educators to pinpoint students needing additional academic support beyond regular instruction and determine which domains to prioritize for whole-group intervention.

Through the Texas Reviewers Site, Data and Progress Monitoring, instructions are given for using whole-group and small-group assignments and hosting one-on-one conferences with students. Suggestions are also given for choosing and assigning small groups of students assignments for remediation or enrichment.

The *Using DreamBox for MTSS* resource document found in the Insight Dashboard provides detailed instructions for educators on implementing tiered support and intervention for their students. The document guides teachers, beginning with the Launchpad assessment and followed by the instructional strategies available in the program, such as "Lesson Highlights" and "Reports." It further outlines how "Growth Reports" can be used to create small-group and whole-group instruction and identify the intervention needs of individual students. This comprehensive resource provides guidance for the educator to implement all the features of the program effectively.

The "Progress Monitoring and Key Report" resource in the Insight Dashboard provides educators explicit instructions on interpreting student engagement within the program. It includes processing prompts such as "What mistakes do you see students making in this lesson? What questions can you ask that will provide open-ended thinking if the student were to try this lesson again based on the student's activity,

which domain and lesson group would you prioritize?" As explained above, the document shows teachers how to use the Assignments tool to provide independent and guided learning support for individual students based on their data analysis. Assignments use real-time proficiency about each student and can be used to supplement their Learning Pathway. Lesson Recommendations are another way the program guides how to support students' guided practice in areas of need.

The adaptive materials adjust the level of difficulty based on student responses and provide immediate feedback to support personalized learning. When students struggle, the program offers in-lesson scaffolding to support their understanding. If the student continues to struggle, *DreamBox* models the correct response and may exit the lesson, marking it as "Completed with No Demonstrated Understanding." This performance data informs the selection of future lessons within the student's personalized learning pathway. Regardless of student performance, each completed lesson contributes to an ongoing assessment of understanding, allowing the program to adapt instruction to meet individual learning needs continuously.

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

On the Reviewer Site, the materials provide a subsection, "Multi-Tiered Interventions," under the section entitled "Supports for All Learners." In this section, the educator learns that *DreamBox Math* will provide enrichment and extension by challenging advanced learners "through complex problem-solving, adaptive acceleration through dynamic skill progression, and STEM connections through real-world applications" to build their "higher order thinking skills."

The materials provide educators with various resources to implement enrichment activities that foster an engaging learning environment. In the "Mathematicians in My World" activity, students research someone in their community who uses mathematics in their profession, complete related writing prompts, and create a profile to present their chosen mathematician to the class. This activity helps students see how math is used daily and understand its importance beyond the classroom.

The materials provide options and guidance for effective differentiation to meet the diverse needs of learners and support enrichment. The *DreamBox Math* Insight Dashboard allows educators to monitor student progress and make instructional adjustments based on data from each student's personalized learning path. On the student's Home page, teachers can view recommended lessons, identify the relevant domain and lesson group, and determine which concepts students are ready to learn. This enables educators to personalize instruction and make informed decisions that support and enhance student growth.

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

Though in the Texas Reviewer Site resource "*DreamBox Math*: How Can I See If a Student Is Struggling?" students who fall behind the recommended usage are identified with a caution symbol, alerting their teachers immediately of students needing further support.

DreamBox Teacher-Student Messaging: Overview tells educators that a red dot will be next to a student's name when they have asked or responded to feedback, which helps the teacher to check in with students promptly. This section on messaging also gives educators guidance for the type of messages that could be beneficial in different situations.

Educators can access *DreamBox Math* Professional Learning Content when logged into "*DreamBox* University." Under this tab is a Learning Path tile, where educators can see the different professional learning courses available, grouped by topic. When an educator chooses the "Getting Started with *DreamBox Math* - Learning Path," they have access to a course entitled "Understanding *DreamBox* Adaptivity & Assessment." Through this course, educators learn the materials alert an educator when a student repeatedly completes lessons with "No Demonstrated Understanding," with a flag on "the Home page of the Educator Insight Dashboard." This alert and the guidance provided when the educator clicks on the student are part of the prompts and guidance the materials provide to educators for delivering timely feedback.

The online program includes a real-time "Assignment History Report" that tracks current data on student performance in assigned lessons. This report updates in real-time, allowing educators to monitor progress. On the Assignment Card, the Lessons Column displays status icons for each completed or paused lesson, helping teachers quickly interpret student performance. For example, a checkmark indicates successful completion with demonstrated understanding, while other icons represent lessons completed without understanding, repeated unsuccessful attempts, or lessons that were paused and not finished. These insights enable teachers to identify students needing additional support and provide timely, targeted feedback.

Within "*DreamBox* University" resources in the Advanced Package Partners option, there is a course that teachers can complete to better understand how to monitor and support learning activity. Here, the "Lesson Highlights" feature is explained to provide insight into the student's activity. The highlights video shows the teacher how often the student clicks on aspects of the activity and updates in real time. It also shows how *DreamBox Math* prompted and responded to the student's engagement.

3.3 Support for Emergent Bilingual Students

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

GUIDANCE	SCORE SUMMARY	RAW SCORE
3.3a	This guidance is not applicable to the program.	N/A
3.3b	The materials do not contain supports clearly differentiated across all levels of language proficiency, as defined by the ELPS.	2/4
3.3c	The materials do not contain explicit implementation guidance aligned to state-approved bilingual, or ESL program models.	0/1
3.3d	All criteria for guidance met.	8/8
3.3e	This guidance is not applicable to the program.	N/A
—	**TOTAL**	10/13

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.

Through the Texas Reviewer Site, "Supports for All Learners," Emergent Bilingual Support, Learn More, "Supporting English Language Learners using *DreamBox Math*," the materials use hands-on activities and digital resources to help English language learners (ELLs) explore and learn mathematical concepts with less language dependence. The digital math manipulatives allow students to develop a deep understanding of concepts and skills through multiple modalities, promoting problem-solving and critical thinking. This use of visuals and manipulatives with routine academic language makes the materials more accessible, especially for emergent bilingual (EB) students.

Within the *DreamBox* Reviewer Site, a section lays out the support available for diverse learners. Within this section, there is a tab for emergent bilingual students. This resource lists how the educator can support learners by highlighting the hands-on activities, using digital manipulatives, and providing lesson

support. Educators are encouraged to use a variety of implementation models, such as whole groups, small groups, and homework. The guidance states that teachers can turn on Spanish language instructions for students who need them. All content and activity guidance is then provided to the student in Spanish. Further, teachers can build confidence and engagement by monitoring student progress using the embedded assessments.

The materials include embedded linguistic accommodations to support ELLs. According to the *DreamBox Math for Spanish-Speaking English Language Learners (ELLs)* document, scaffolded audio and visual supports improve math vocabulary by helping students connect mathematical terms to key concepts and communicate their thinking more effectively. In addition, visual representations and meaningful contexts, including using manipulatives, enable students to access and understand mathematical concepts at their individual levels of language proficiency. However, the materials do not address the full range of language development levels defined by the English Language Proficiency Standards (ELPS).

The materials include only generic tips for supporting emergent bilingual students and do not address the multiple levels of language development. The Teacher Narratives consistently use strategies to support emergent bilingual students, such as: "Have students pair up with a partner to generate responses together. Have students restate each other's reasoning in classroom discussions. Introduce academic vocabulary as needed." While these strategies offer general support, they lack differentiation or scaffolding aligned to the varying language proficiency levels that emergent bilingual students may exhibit.

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

DreamBox Math does not provide specific guidance for use in state-approved bilingual/ESL programs. The educator is not explicitly guided on when and how to use this resource. It is not listed in the Teacher Narratives that accompany several of the Texas Essential Knowledge and Skills (TEKS) or referenced within the student activities. However, while strategies provide general support for English learners, the materials do not address or align with state-approved bilingual, or ESL program models.

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.

Through the Texas Reviewer Site, Instructional Design, the "Developing Academic Mathematical Language" section, *DreamBox Math* references educator tools, such as printable glossaries and "Lesson Highlights," to help scaffold and extend language development in English and Spanish. However, these resources are found in either Spanish or English, not both simultaneously, which would allow for cross-linguistic connections through oral and written discourse. The Teacher Narratives guide teachers in developing academic vocabulary, increasing comprehension, and building background knowledge

through oral and written discourse, including cross-linguistic connections through oral or written discourse.

"*DreamBox* University" offers several professional development resources and videos for educators. The Using *DreamBox Math* Lessons for Instruction video shows educators how to use the lesson videos provided for each standard with students in a whole-group or small-group classroom setting. The video also includes recommended stop points, oral discussion prompts, and sentence stems to support student discourse. It provides guidance on increasing engagement without answering what the students see and interact with in the program.

The materials provide an article entitled "Supporting English Language Learners using *DreamBox Math*." This article from the Resource tab of the Educator Login explains five ways to use *DreamBox Math* to support emergent bilingual students. These ways include "highlight the hands-on activities, use of digital manipulatives, and in-lesson supports; use a variety of implementation models to increase access and personalize instruction; offer Spanish speaking students the opportunity to learn in Spanish and English; monitor growth and progress on key reports by utilizing *DreamBox* embedded formative assessments; and strategically build student confidence, motivation, and engagement." This resource provides guidance on how the online materials include embedded guidance to support vocabulary development, increased comprehension, build background knowledge, and make cross-linguistic use of both oral and written discourse in specific lessons for the adaptive learning pathways.

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

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

4. Depth and Coherence of Key Concepts

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

4.1 Depth of Key Concepts

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

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

In grade 4, the digital math program offers students targeted practice through organized lesson groups. For example, in the "Fractions In The Real World 2" lesson group, students work on problems related to generating equivalent fractions, addressing Texas Essential Knowledge and Skills (TEKS) 4.3B and 4.3.C. One of the lessons, "Money Contexts with Fractions Between 0 and 2; Target Visible on Number Line," is an "Exploring and Sense Making" lesson type. As students move through the lesson group, they receive a proficiency percentage that reflects their progress and understanding.

The learning path tasks and assessments are structured around three distinct lesson types: "Exploring and Sense Making," "Looking for Structure and Relationships," and "Fluency, Application, and Procedural Skills." "Exploring and Sense Making" lessons focus on developing conceptual understanding and connecting multiple representations. "Looking for Structure and Relationships" encourages strategic thinking as students identify mathematical patterns and relationships. "Fluency, Application, and Procedural Skills" lessons provide opportunities for students to practice applying strategies accurately, efficiently, and flexibly in areas where they have already demonstrated understanding. The digital math program analyzes mistakes, assesses, and scaffolds the students as they progress through the learning path. The students' TEKS proficiency is displayed on the *DreamBox* Insight Dashboard.

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.

When accessing the teacher version of *DreamBox* Add Assignment by Topic or Standard, the materials allow the teacher to assign both short- and long-term assignments based on TEKS or instructional materials. The Teacher Login microsite provides the curriculum by grade level. This shows the TEKS strands and activities/lessons listed under each of the TEKS. Within the many options provided, there is

scope for students to encounter items that go beyond the grade level. The materials provide a "Growth Report" with grade-level standings and current growth targets.

The "How It Works" section of the *DreamBox* Reviewer Site mentions that the program places students on a starting initial level based on their diagnostic assessment. This may be different from their enrolled grade level based on their performance. Once placed on their individual learning pathway, students progress at their own pace as they complete lessons and activities within the platform. This process allows opportunities for enrichment and extension as and when they are ready for it.

The *DreamBox* Reviewer Site contains a tab entitled Instructional Assessments. When the Learn More button is clicked, the materials supply articles for how *DreamBox* works. In the article, "*DreamBox* Math: Continuous Assessment and Adaptivity," it states that the material "constantly assesses and adapts to individual student needs." The lessons are chosen based on the data the program has collected. While the lessons may seem similar, the content adjusts to meet the students' needs.

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.

In the Teacher Experience, The *DreamBox* Difference—Grades 3–5 video, it is explained that the virtual manipulatives used help the student to understand the big ideas, and through limiting the use of these manipulatives, *DreamBox* is able to push students to use more efficient strategies.

Through the Teacher Login access, the Curriculum tab includes lessons and activities for the Texas Essential Knowledge and Skills (TEKS) 4.5D. The activities provide students with a pictorial model of arrays to help them solve for the area or rectangles. This simple but direct connection is shown to the students from the array model used to solve multiplication problems in the "Number and Operations" unit.

The materials connect fractions and decimals to build conceptual understanding. In the "Connecting Decimals and Fractions: Tenths"—*Teacher Guide* sample lesson flow, the teacher introduces the lesson by saying, "Today, we are going to explore how decimals and fractions are related, specifically focusing on tenths. Can anyone remind me what a tenth is?" This opening prompt allows students to recall prior knowledge and sets the stage for exploring the relationship between the two concepts.

The materials encourage students to recognize patterns and relationships through the Looking for Structure and Relationships lesson type, which is designed to promote strategic thinking. In these lessons, students actively explore mathematical structures and relationships while developing multiple problem-solving strategies. Learning tasks are focused on helping students connect different models, such as representations, graphs, manipulatives, or games, to deepen their understanding and apply more advanced reasoning skills.

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

Vertical alignment across content and grade bands is present, as seen in the lessons and activities for TEKS 3.4A, 4.4A, and 5.3A. Activities in grade 3 have students encountering one- and two-step problems using addition and subtraction up to 1,000. In the activity, students encounter real-world situations that could be represented using equations for both addition or multiplication, since the equation builder tool

has all those functions. This provides the opportunity for the students to represent their thinking in many ways, and they are not necessarily restricted to one way of representing the word problem.

In the *TEKS Correlation Guide* provided in the Reviewer Site, activities are listed across grades K–5. There are tools introduced in the lower grade levels that continue to be used as problem-solving strategies up to grade 5 as well. For example, some of the tools and strategies introduced in the younger grades are also seen in the activities for grades 3–5, such as number line, strip diagrams, comparison symbols, arrays, and standard algorithms.

The materials provide educators with an "Activity Feed Report" under the Report tab of the Educator Login. When viewing this report, educators can see what activities students have been working on, their level of understanding of the lesson, and the connections of TEKS within the lessons.

The materials include vertical strategies, like digital manipulatives, to connect earlier and more advanced concepts. For example, in grade 3, students use snap blocks to determine if two expressions are equivalent; in grade 4, they use snap blocks to decompose fractions using time or money; and in grade 5, students use snap blocks for division with remainders.

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

In the Teacher Experience: Add Assignment, Assign by Topic or Standard, there is the choice of above- or below-grade-level TEKS and lessons to assign as short- or long-term assignments. This allows the teacher to guide students to experience concepts and procedures above their current grade level.

In the Teacher Login site, activities in grade 2 introduce students to representing multiplication as repeatedly adding groups of objects. These activities involve representation of these equal groups as arrays and requiring students to count them in groups. In grade 3, the vertically aligned TEKS for multiplication (TEKS 3.5B) begins the list of activities with multiplication using arrays. This draws on their prior knowledge of the concept and representation encountered in grade 2. The activities proceed to using area models to complete two-digit by one-digit equations. This sets students up for using this strategy to multiply large numbers in grade 4. These activities demonstrate evidence for coherence of activities by connecting to students' prior knowledge of concepts.

In the *TEKS Correlation Guide* provided in the Reviewer site, activities are listed across grade K–5. There are tools and procedures introduced in the lower grade levels that continue to be used as problem solving strategies up to grade 5 as well. For example, some of the tools and procedures introduced in the younger grades that are seen in the activities for grades 3–5 are number line, strip diagrams, comparison symbols, arrays, and standard algorithms. The activities prompt students to show their thinking using these tools and guide them if they need additional support to demonstrate their thinking/understanding.

Within the Reviewer Site, under the Instructional Design tab, it is noted that "students are supported in building cognitive maps of connected ideas, allowing for deeper understanding and retention. The curriculum is intentionally designed with vertical and horizontal coherence, and is adaptive, reflecting the dynamic nature of student thinking." This intentional coherence allows for a rigorous and relevant instructional design that builds on background knowledge and connects to future grades.

The materials connect prior knowledge to current lessons and future skills by helping students understand the relationship between operations. In the "Explaining the Addition/Subtraction Relationship" *Teacher Guide*, students are presented with two problems: one with a missing sum in an addition problem and one with a missing number in a subtraction problem. Students work independently to find the missing number, then discuss how both problems have the same solution. The teacher emphasizes that addition and subtraction are inverse operations and concepts students have already encountered through fact families. This understanding helps students check their work and choose appropriate strategies for solving problems. Students apply this understanding while working to solve and check problems, reinforcing how the connection between operations supports more advanced problem-solving.

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.

In the Teacher Experience Activity Feed, each student can be selected to see what activities they are currently working on, completed, or paused.

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

The Lesson Design tab within the *DreamBox* Reviewer Site states that this program has three types of research-based lessons that include "Exploring and Sense Making," "Looking for Structure and Relationships," and "Fluency, Application, and Procedural Skills." The activities and tasks that students complete as part of their learning pathway are also grouped this way. The page states that "these lessons support sense-making, transfer, and mastery."

Within the Implementation Toolkit located under the Resources tab when logged in as an educator, there is an About *DreamBox* Learning page. This section contains the article, "*DreamBox Math* Student Experience: Navigating the Grades 3–5 and 6–8 Learning Environments." This article explains how the tools and manipulatives adjust to fit the content, lesson type, and student skill level. These adjustments allow for students to experience interleaved practice as they work through their Lesson Chooser.

5. Balance of Conceptual and Procedural Understanding

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

5.1 Development of Conceptual Understanding

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

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

Within the *DreamBox* Reviewer Site, "Supports for All Learners," under "Automatic Differentiation" and "Just In Time Scaffolding," *DreamBox* describes its use of virtual manipulatives and visual models with the intention to provide interactive tools, like number lines, area models, and base-ten blocks, to help students visualize abstract concepts, explore different strategies, and build problem-solving skills. This allows students to interpret, analyze, and evaluate various models and representations.

The Reviewer Site includes a Lesson Design tab which provides information on how its lessons are grouped into three categories—namely, "Exploration and Sense Making," "Looking for Structure and Relationships," "Fluency, Application, and Procedural Skills." Mathematical process standards are also incorporated into the activities to build problem solving, reasoning, and communication skills, allowing students to demonstrate their understanding in different ways.

The questions and tasks in the materials provide opportunities for students to analyze and evaluate mathematical models to deepen their conceptual understanding. For example, in the grade 4 lesson "Decomposing Fractions Using Time or Money," students explore the concept of equivalent fractions through real-world contexts involving time and money. The teacher supports learning by using targeted questioning to help students connect denominators to divisible units. Students are given the choice to use either time or money as a model for decomposing fractions. One guiding prompt from the lesson asks, "Should we use money or time to build that model? Discuss which model you would choose with your partner and why you chose it." The interactive whiteboard tool to support this activity is available on the publisher's website under Resources and Teacher Tools.

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

In the grade 4 curriculum, under the "Numbers and Operations" domain, Texas Essential Knowledge and Skills (TEKS) 4.2D, the lesson, "Comparing Positive Rational Numbers to the Tenths Place" requires students to create a pictorial model that compares decimal numbers to the tenths place with a number

line on a mini-golf setting. They are given an amount of numbers to choose that are greater than or less than a given number; then, the ball is hit to each number they chose, creating a pictorial model of the balls stopping before or after the given number.

The grade 4 curriculum section in the Teacher Login site provides opportunities for the students to build concrete models using virtual manipulatives in order to determine ways to decompose a number by place value in the lesson for TEKS 4.2B "Decomposing a Number Up to 3,000 by Place Value In Different Ways." Tools used include loose pieces, boxes of 10s, cases of 100s, and pallets of 1,000s, which shows concrete model building engagement to represent mathematical situations.

The tasks in the "Drawing Angles" *Teacher Guide* lesson provide students with meaningful opportunities to create concrete representations of angles using pattern blocks. Students are instructed to take out their pattern blocks and work independently to explore how angles change as they combine blocks to form new designs.

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

Within the DreamBox Reviewer Site, Instructional Design, under "Developing Conceptual and Procedural Understanding," the program states, "*DreamBox* develops procedural fluency by enabling students to explore multiple pathways to a solution and encouraging strategic flexibility. Procedural fluency is not practiced in isolation—it is developed through sense-making, strategy development, and fluency-building lessons. Students engage with models, manipulatives, and symbolic representations to build efficiency, accuracy, and confidence." This allows students to use their understanding that was developed through the virtual manipulatives to apply it to procedures and new problem situations.

The Instructional Design tab also provides information on the TEKS alignment of the lessons and activities, as well as a "Curriculum Overview." The overview explains how *DreamBox Math* fosters true understanding by transference, providing students with real-world scenarios to apply their understanding. Developing mathematical language and providing personalized support are additional ways in which students can comprehend mathematical concepts and situations.

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.

Through the *DreamBox* Reviewer Site, Lesson Design, the third lesson type of the three research-based lesson types, is "Fluency, Application, and Procedural Skills." Students apply skills in novel problems, using efficient strategies and symbolic representation, which allows students the chance to practice with both automaticity and fluency while using this program.

Educators can access the *Curriculum Catalog* under the Additional Resources when logged into "*DreamBox* University." The educator can find "Beyond Times Tables: Automaticity 1." The article explains the objective of students being able to "multiply by friendly numbers greater than 20." They use automatized facts to have students identify the equations that show one-digit by two-digit multiplication and solve as many as possible in a given amount of time. The students will see a summary board of the facts they got correct and the ones they got wrong and receive "tips and tricks for success." The video at the bottom explains the location of this lesson in the timeline after discovering, learning, and practicing multiple strategies for multiplication, which builds students' ability to identify the strategy they can use most efficiently to solve the equations within the time constraint, which shows their fluency in the strategy.

Also, in "*DreamBox* University," educators can access the curriculum catalog under Additional Resources. To see the specific grade 4 curriculum under the "Number and Operations" domain, Texas Essential Knowledge and Skills (TEKS) 4.4H, educators can read the Fluent Multiplication Problem String Teacher Narrative. This narrative uses number patterns to build fluency with multiplication facts. This fluency starts by identifying what students notice when one factor is constant but the other factor doubles. It builds on this pattern throughout the narrative until the students can determine how using patterns can be a strategy to help them with multiplication problems.

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

On the Reviewer Site, under the section entitled Student Experience, the materials provide a subsection, Meaningful Context. In this section, the educator can see how students interact with symbolic representations, visual models, virtual manipulatives, game-based challenges, and real-world

applications, all to build flexible thinking. This development of flexible thinking will help them develop "multiple strategies to solve a problem rather than following a single method."

Educators can access *DreamBox Math* Professional Learning Content when logged into "*DreamBox* University." Under this tab is a Learning Path tile, where educators can see the different professional learning courses available, grouped by topic. When an educator chooses the "Getting Started with *DreamBox Math*—Learning Path," they have access to a course entitled "Understanding *DreamBox* Adaptivity and Assessment." Through this course, educators learn the importance of Number Strings. The educator learns that Number Strings allow students to "make connections through intentional question sequencing." These connected problems push the students' thinking along as they build their efficiency, flexibility, and accuracy at the given skill. This example shows students adding fractions with uncommon numerators and denominators using concrete to more procedural representations. Students can only get to the more procedural representations because of the opportunities to use coins, number lines, and algorithms as they work through the scaffolded Number Strings.

The materials offer opportunities for students to apply efficient, flexible, and accurate mathematical procedures. In the grade 4 "Partial Quotients Algorithm" lesson, students divide up to four-digit dividends by one-digit divisors using the partial quotients method. This strategy builds on their understanding of multiplication facts, place value, and patterns with zeros. Students also compare and contrast methods such as the area model and partial quotients, noting that the area model uses multiplication and addition. In contrast, the partial quotients method uses multiplication and subtraction.

The materials allow students to practice efficient, flexible, and accurate mathematical procedures throughout learning pathways. In the grade 4 "Connecting Strategies" lesson, students begin by solving multiplication problems using the standard algorithm to reinforce regrouping and procedural accuracy. Then, in the "Matching the Models" game, they compare strategies such as mental math, partial products, and the standard algorithm, exploring how these methods connect and support a more profound understanding.

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

The Lesson Design tab within the *DreamBox* Reviewer Site showcases how the program is conceived and categorized. Lessons fall into one of three categories—"Exploring and Sense Making," "Looking for Structure and Relationships," and "Fluency, Application, and Procedural Skills." Presenting real-world scenarios for students to apply their learning enables their critical thinking and problem-solving skills. Activities that fall under the structure and relationships category allow students to gain a deeper conceptual understanding of their learning concepts by analyzing similarities and patterns. Finally, fluency and procedural skills increase their ability to work confidently and select efficient problem-solving strategies.

Educators can access *DreamBox Math* Professional Learning Content when logged into "*DreamBox* University." Under this tab is a Learning Path tile, where educators can see the different professional learning courses available grouped by topic. When an educator chooses the "Getting Started with *DreamBox Math*—Learning Path," they have access to a course entitled "Understanding *DreamBox* Adaptivity and Assessment." Through this course, educators learn the materials progress through rigor. The course explains, "For every concept or skill, *DreamBox* first engages students in conceptual sense-making." The graphic shows that the next stage of lessons is for students to find structure and relationships; the last stage is procedural skills and fluency. This logical flow through the skill allows students to become efficient, flexible, and accurate at the skills on their learning pathway.

In the grade 4 Fix the Error activity, students review completed multiplication problems to find and correct mistakes. This helps students strengthen their understanding of multiplication and use mathematical language to explain their thinking. The activity encourages students to think about why using multiple strategies is helpful for solving problems, checking their work, and choosing the most efficient method.

In grade 4, "Adding Fractions with Equal Denominators Using Models – Lesson 1" *Teacher Guide*, students explore multiple strategies, such as fraction circles, bar models, and number lines, to solve problems. As they work through these models, students compare how each supports their understanding of fraction addition. Through independent practice, partner discussions, and class sharing, students reflect on which strategies are most effective, promoting flexible thinking and helping them evaluate the efficiency of different approaches.

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

Within the Reviewer Site, there is guidance provided for educators on creating and using assignments to personalize further learning for individual students. This resource shows how teachers can use student activity reports from the Educator Dashboard to create and place students on activities that will move them to a deeper understanding of strategies once they have mastered the foundational knowledge of the concept. "For example, when teaching students to understand and become fluent with the multiplication of whole numbers, *DreamBox Math* will engage students through various models and strategies such as skip counting, doubling, tripling, number lines, arrays, and number strings." These lessons lead to a deep understanding of, and fluency with, multiplication. Therefore, using this feature will help students adopt more efficient strategies for math problem-solving.

On the Reviewer Site, the materials provide a subsection for "Curriculum Overview" under the Instructional Design tab. In this section, the educator learns that *DreamBox Math* develops procedural fluency by allowing students to engage with models, manipulatives, and symbolic representations. Interacting with these different approaches builds the student's efficiency when solving mathematics problems.

The materials guide students in selecting efficient problem-solving strategies. In the grade 4 "Putting It All Together" lesson, students are guided to use the "Three Reads" strategy to make sense of word problems. After each read, they respond to a targeted question, such as "What is happening?" "What quantities are in the problem?" and "What mathematical questions can be asked?" This structured approach supports students in focusing on understanding, planning, and efficiently solving problems.

5.3 Balance of Conceptual Understanding and Procedural Fluency

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.3a	The materials do not contain an explanation that explicitly states how the conceptual and procedural emphases of the TEKS are addressed.	0/2
5.3b	All criteria for guidance met.	3/3
5.3c	All criteria for guidance met.	6/6
—	**TOTAL**	9/11

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

The materials do not explicitly explain how or why the conceptual understanding supports the procedural emphasis of the Texas Essential Knowledge and Skills (TEKS). The materials do not explicitly emphasize how the use of virtual manipulatives builds conceptual understanding.

Materials do not explain how conceptual understanding is used to support the procedural focus 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.

Through the *DreamBox* Reviewer Site, "Supports for All Learners, Differentiation and Scaffolds," *DreamBox Math* uses concrete and representational models like "number lines, area models, and base-ten blocks" to help students visualize abstract concepts, explore different strategies, and build problem-solving skills. Guided tutorials articulate how models relate to algorithms and numeric representations, reinforcing understanding and aligning seamlessly with TEKS objectives. This supports students in connecting and creating the models to the abstract.

The Lesson Design tab within the *DreamBox* Reviewer Site showcases how the program is conceived and categorized. Lessons fall into one of three categories—"Exploring and Sense Making," "Looking for Structure and Relationships," and "Fluency, Application, and Procedural Skills." Presenting real-world scenarios for students to apply their learning enables their critical thinking and problem-solving skills. Activities that fall under the structure and relationships category allow students to gain a deeper conceptual understanding of the concepts they are learning by analyzing similarities and patterns. Finally, fluency and procedural skills increase their ability to work confidently and select efficient problem-solving strategies. This grouping of content allows students to engage with concrete models, pictorial representations, and abstract models as required by the TEKS.

Specifically in grade 4, tasks are designed to help students develop a strong understanding of equivalent fractions using concrete models, pictorial representations, and abstract strategies. To determine whether

two fractions are equivalent, students begin with concrete models, such as placing fraction blocks on a number line to visualize the relationship between fractions. They then move to pictorial representations, including tables that organize equivalent fractions. Students also use real-world contexts, such as money or time, to compare fractional values. As their understanding deepens, students apply abstract strategies, such as identifying numerical patterns through factors and products and writing equations to represent equivalent fractions.

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.

Through the *DreamBox* Reviewer Site, "Supports for All Learners, Differentiation and Scaffolds" *DreamBox Math* uses concrete and representational models like "number lines, area models, and base-ten blocks" to help students visualize abstract concepts, explore different strategies, and build problem-solving skills. Guided tutorials articulate how models relate to algorithms and numeric representations, reinforcing understanding and aligning seamlessly with TEKS objectives. This supports students in connecting and creating the models to the abstract. The lessons found under Teacher Resources support students in defining and explaining the models of abstract concepts.

The Student Experience section of the *DreamBox* Reviewer Site provides information on how materials are organized and presented to the students within the program. Being an adaptive online program, every activity/task has digital manipulatives that allow students to see and create visual models and understand symbolic representations. Students use these tools to connect and create more abstract representations, such as equations and expressions, to show their understanding as they engage with the program. Just-in-time support, along with opportunities to pause, think, and reflect on feedback before proceeding, also aids in enhanced understanding.

Specifically, the material in the grade 4 curriculum for TEKS 4.6A contains Optional Supplemental Resources for teachers and students. The resource for this TEKS is entitled "Classifying Angles." When using this resource, students will create, define, and explain concrete models for classifying angles by deciding what does not belong, naming images of angles, and justifying the classification. They will also create, define, and explain more abstract concepts of angles as they identify them in their environment and the world outside of the classroom.

In the grade 4 curriculum, the home page of TEKS 4.5D contains all of the lessons aligned to the standard. When viewing these lessons, educators can see that the type of lesson varies, allowing students to move through a progression of creating, defining, and explaining concrete models for area and perimeter using unit tiles, to create, define, and explain perimeter and area using the respective formulas.

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.

Through the *DreamBox* Reviewer Site, Emergent Bilingual Support, the materials use hands-on activities and digital resources to help English language learners (ELLs) explore and learn mathematical concepts in a manner that is less language-dependent. The digital math manipulatives allow students to develop a deep understanding of concepts and skills through multiple modalities, promoting problem-solving and critical thinking. Using visuals and manipulatives with routine academic language provides opportunities for students to develop academic mathematical language.

On the Reviewer Site under the Instructional Design tab, the materials provide a subsection, "Curriculum Overview." At the bottom of this section is the heading "Developing Academic Mathematical Language." The materials inform educators that *DreamBox Math* "integrates academic vocabulary throughout its lessons." This section also explains that supports like visuals, virtual manipulatives, and guided prompts are embedded to assist students in developing their academic mathematical language.

Specifically, through the *DreamBox* Student Experience as a grade 4 student, there are five lessons students can choose from. One of them is the "Skip Counting with Open Number Line" lesson. Here, there is a red question mark icon. When students click on this icon, the program explains a number line and identifies the task the student needs to do. Instead of just reading aloud the written prompt on the screen, this tool helps the students understand the visual, manipulative, or task, supporting academic mathematical language development.

Also in grade 4, the "Drawing Angles" *Teacher Guide* provides opportunities for students to develop academic mathematical language through visuals and manipulatives. In this lesson, students draw right, acute, and obtuse angles. Using pattern blocks, students explore how angles change as the blocks are combined to create new designs. Students then draw angles and use index cards to help classify them. To conclude the activity, students share what they learned about lines and angles, while the teacher encourages them to use mathematical vocabulary in the "Writing About Math" section.

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.

In the resources provided to educators, the *Supporting ELLs Using DreamBox Math* document guides how to highlight and use the digital features available to help students gain confidence, practice, and engage with all aspects of the program. This guidance, along with the *Glossary of Mathematical Terms* provided for educators and students in 11 different languages, and the lesson narratives that provide teachers with advice on how to scaffold and support student discourse in the classroom, is present in the materials, including using academic mathematical vocabulary in context.

Within the Student Experience login, there are five games that students can choose from each time. These games include several embedded tools such as text-to-speech, a hint button (light bulb icon), a question mark icon for additional explanation and support, and manipulatives such as fraction bars, number line, equation builder, etc. There is no evidence of an interaction discussion board where students can justify their thinking and see their peers' responses. Additionally, the real-time chat or voice response tools prompt students to refine their explanations using precise mathematical language.

In the grade 4 curriculum under the "Number and Operations" domain, Texas Essential Knowledge and Skills (TEKS) 4.2B, the material contains a Teacher Narrative, "Understanding the Value of Digits in Whole Numbers." In this Teacher Narrative, educators are given guidance to have students think-pair-share, have whole-class discussions, and reflect and write on what they have learned. For example, educators are guided to say, "What do you notice about these numbers? Turn to your shoulder partner and discuss your observations," for the first set of numbers displayed on the board. Then, educators allow students to share their numbers and explain their reasoning with the whole class. At the end of the lesson, students are prompted to write a reflection to answer one of two questions: "What is important to pay attention to in numbers in standard form?" or "How do we represent numbers in word form?" This guidance provides scaffolds and supports for students to use their academic vocabulary.

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

In grade 4, the "Classifying Two-Dimensional Figures – Lesson 3" *Teacher Guide* includes embedded guidance to support students' use of appropriate mathematical language and academic vocabulary during discourse. The teacher presents students with a pair of shapes, such as a square and a rhombus. Working with a partner, students discuss and predict which categories the shapes might belong to, based on previously learned attributes. They classify the figures according to specific characteristics, such as the number of parallel lines or the presence of perpendicular lines. After the discussion, students write down their thoughts and share them with a partner.

Also in the grade 4 curriculum under the "Number and Operations" domain, TEKS 4.2G, the material contains a Teacher Narrative, "Connecting Decimals and Fractions: Tenths." In this Teacher Narrative, educators support the application of academic vocabulary to describe small numbers. At the end of the lesson, educators are given guiding questions that students can choose between ("What is important to pay attention to in fractions?" or "How do we connect fractions and decimals?") to prompt students to justify in writing their learning from the lesson.

In the Teacher Experience, Curriculum, "Number and Operations," 4.3.A, Teacher Resources, "All Mixed Up," the lesson plan begins with the students making a model of 3/2 with the understanding that there will be errors. As students continue to work with more mixed numbers in partners and present to the whole class, there is guidance for using mathematical language.

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

In the grade 4 curriculum under the "Algebraic Reasoning" domain, TEKS 4.5A, the material contains a Teacher Narrative, "Using Strip Diagrams to Solve Multi-Step Problems." In this Teacher Narrative, the class is learning how strip diagrams can help them solve multi-step problems. Throughout this Teacher Narrative, educators are given guidance to have students think-pair-share, have whole-class discussions, and reflect and write on what they have learned. These different modes of discourse allow students to hear the academic vocabulary with and from their peers.

In grade 4, the "Putting It All Together" *Teacher Guide* includes embedded guidance to facilitate mathematical conversations, allowing students to hear and use mathematical language with their peers. Students use Story Problem Cards, reading their card and finding the classmate holding the matching solution steps or corresponding story problem. The partners work together to solve the problem in the "Story Problem Match" activity. To conclude, the teacher leads a class discussion by asking, "Did any of the story problems today remind you of a time when you used math in real life? Have you ever used math at the grocery store? When cooking with your family?"

In grade 4, the "Algorithms and Two-Digit Multiplication" *Teacher Guide* includes questions and prompts to facilitate mathematical conversations. For example, the teacher asks students to discuss how the partial products method and the standard algorithm are connected. The materials provide guidance, such as sentence frames, to support students in refining and using precise mathematical language during peer discussions.

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

In the Optional Supplemental Resources, a Teacher Resource entitled "Let's Build It!" provides educators with common misconceptions that students may have throughout the lesson (e.g., "students may try to

partition a whole into unequal shares"). The Teacher Resource also anticipates student answers and includes exemplar responses for questions and tasks.

In the Teacher Experience under the Curriculum tab, students can access hints to help solve problems. If they continue to respond incorrectly, the hints repeat, and the program ultimately shows the correct solution. The program also accepts a variety of correct responses, providing embedded guidance to support and redirect inaccurate answers.

5.5 Process Standards Connection

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.5a	All criteria for guidance met.	1/1
5.5b	All criteria for guidance met.	2/2
5.5c	All criteria for guidance met.	1/1
—	**TOTAL**	4/4

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

The materials show how *DreamBox Math* lessons and virtual manipulatives align with all seven Texas Essential Knowledge and Skills (TEKS) process standards through the *DreamBox* Reviewer Site, Instructional Design, TEKS Alignment, and *Process Standards Alignment* guide. Story problems are included for all operations, and students use tools and a problem-solving model to understand and work with mathematical concepts. Students create and use multiple representations to analyze relationships throughout the *DreamBox Math* activities, which provides evidence of integrating the TEKS process standards.

Also, on the *DreamBox* Reviewer Site, the materials provide a TEKS Alignment page under the Instructional Design tab. On this page, there is an article linked as *Process Standards Alignment*. This article is entitled "Mathematical Process Standards" and provides educators with the process standards and some examples of *DreamBox Math* lessons that engage students with the process standards. Through the examples listed, educators can see that the process standards are implemented appropriately within the materials. For example, to meet the process standard "Apply mathematics to problems arising in everyday life, society, and the workplace," all the word problem questions are given in a real-world context that the student chooses.

In the grade 4 "Pieces from the Whole" *Teacher Guide*, students work on the content standard to represent and solve addition and subtraction of fractions with equal denominators using objects and pictorial models that build to the number line and apply properties of operations, which corresponds to TEKS 4.3.E. Although the TEKS process standards are not explicitly stated in the lesson, they are appropriately integrated as students apply mathematics to solve real-life scenarios and explain their thinking through words and pictures. Teacher guidance notes, "The ability for students to model with mathematics is one of the mathematical practice standards and is crucial for them to solve problems and explain their thinking to others."

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

DreamBox Math materials include a description of how process standards are incorporated and connected throughout the learning pathways. The *Process Standards Alignment* guide outlines how

lessons and virtual manipulatives align with the TEKS mathematical process standards. This annotated table provides specific examples of student engagement in problem solving, reasoning, and communication. The guide supports educators in understanding how process standards are embedded across instructional content.

The *DreamBox Math* Teacher Narrative "Representing Numbers with Objects" references the process standards at the start of the lesson and connects them to real-life applications for students.

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

On the Reviewer Site under the Instructional Design tab, the materials provide a subsection titled TEKS Alignment. This page links to the article "Mathematical Process Standards," which gives educators an overview of the TEKS process standards and includes examples of *DreamBox Math* lessons that engage students with them. A table also shows how select lessons align with TEKS process standards.

Within the Teacher Narratives folder, there are teacher guides for each lesson. These guides include the TEKS Breakout, as well as the TEKS Process Standards for every lesson.

The student's Activity Feed displays the lessons the student is currently working on, a description of each lesson, and the TEKS addressed. For example, a grade 4 student working on the "Completing a Function Table Using Rules of Subtracting 7 to 9" lesson includes a description stating, "Students add and subtract 3 to 9 from numbers between 0 and 200." The TEKS addressed is 4.5.B.

6. Productive Struggle

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

6.1 Student Self-Efficacy

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

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

In the Implementation Toolkit within the Resources Tab, educators have access to an "About *DreamBox Math*" section. This section contains an article entitled "How Does *DreamBox Math* Work?" This article explains how in *DreamBox Math*, "it's not just about right and wrong answers and how quickly each student gets there." The materials facilitate conceptual approaches and scaffolding with hints that benefit students and deepen their understanding because students are thinking mathematically, persevering through problems, and making sense of mathematics throughout the *DreamBox* platform.

According to the *DreamBox Math* Student Experience webpage, the adaptive materials support mathematical thinking and sense-making through engaging, real-world contexts. Visual tools such as number lines, area models, and arrays help students develop higher-order skills by allowing them to interact dynamically with mathematical relationships. As the materials state, "Game-based challenges and real-world applications allow students to show a deeper understanding of math, moving beyond early sense-making and showing true fluency and application."

On the *DreamBox Math* Student Experience webpage under the Meaningful Context tab, the materials provide opportunities for students to persevere in problem solving by encouraging flexible thinking and the use of multiple strategies rather than relying on a single method. Interactive tools engage students in exploring various approaches, while hints and real-time scaffolding offer moments to pause, reflect, and respond to feedback, supporting continued progress through the lesson.

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

When accessing the *DreamBox* Insight Dashboard website, there is a Curriculum tab that lays out the lessons and activities by grade level and content group. These teacher-led and student-led resources show different ways a problem can be solved by providing multiple strategies and approaches to problem solving. Teachers can add specific activities to students' learning pathways. There are

opportunities for students to justify their thinking through opportunities to provide explanations of their solutions.

Within the *DreamBox* Insight Dashboard, there are lessons and activities grouped by grade level. In the grade 4 lessons, teacher-led whole-group lessons focus on a particular skill or content area with most Texas Essential Knowledge and Skills (TEKS) having Teacher Narratives. Within these lessons, there is always a section called "Focus Strategies." Here, two strategies are highlighted for the teacher to use to help engage students in talking and processing their thinking and learning about mathematics. Some strategies mentioned here include "Think-Pair-Share" and "Think Aloud." Also, there are recommended stop points throughout the lesson where teachers are encouraged to ask open-ended prompts and provide students with time to share their chosen strategies with a partner.

Within the Teacher Experience Resources grade 4 Teacher Tools "Place Value with Decimals" lesson plan, the class manipulates the dial to find the relationship between the 100s, 10s, 1s, and tenths. After discussing these observations, the teacher gives the class a goal number to represent, asking students which dial they would move first. After each possible response, the teacher is instructed to, "Ask the class to critique this strategy and first step." Depending on the choice that is used, the teacher is also prompted that, "Most likely, a conversation about efficiency and optimal moves will arise." This lesson plan supports students in understanding and explaining that there can be multiple ways to solve problems and complete tasks. Materials do offer specific prompts or guidance to support students in justifying the reasoning a specific strategy was used to solve problems and complete tasks.

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

In the "*DreamBox* University" website, there is a resource for educators called "Using *DreamBox* Lessons as an Instructional Tool." This resource provides recommendations on how educators can launch lessons, promote opportunities for discussion, and use video lessons to enhance engagement. There are even some prompts provided to initiate and facilitate student discourse, such as the following prompts: "What do you notice?", "What do you wonder?", "Do you have an estimate?", and "Why do you think that?"

Within the *DreamBox* Teacher Experience Curriculum in grade 4, the "Number and Operations" Teacher Resources include "The Partial Quotients Algorithm" lesson where the students use and compare the area model for division with partial quotients. Students are asked to talk with their shoulder partner about the meaning of partial quotients and work in groups to solve various problems. The final activity in this lesson, "Writing About Math," asks students to, "Look at the two different strategies for solving 812 ÷ 4 = 203. Describe how the area model and the partial products algorithm are similar and how they are different." The lesson plan requires students to do, write, and discuss their mathematical ideas with peers and educators.

The materials are designed to support students in making sense of mathematics by providing multiple opportunities to engage in doing, writing about, and discussing math with peers and educators. In grade 4, the "Putting It All Together" Teacher Resource uses the "Three Reads" strategy to help students deepen their understanding of word problems. For example, students work with the teacher to solve a multi-step problem and respond to a series of questions after each read, such as "What is happening in the problem?", "What quantities are in the problem?", and "What mathematical questions can you ask about this situation?" In the next problem, students work with a partner to solve another multi-step problem using the same "Three Reads" process, writing their responses to each question as part of solving the problem.

6.2 Facilitating Productive Struggle

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

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

DreamBox Math materials support educators in guiding students to share and reflect on their problem-solving approaches, including explanations and justifications. The website states, "*DreamBox* assessment is based on students' demonstrated understanding, not just correct answers. Each lesson contains measurable learning objectives aligned to Texas Essential Knowledge and Skills (TEKS) where student evidence is showcased in not only what they answer, but what they do and how they show their thinking."

DreamBox Math materials support educators in guiding students to share and reflect on their explanations and justifications. In grade 4, the *Teacher Guide* for "Subtracting Fractions with Equal Denominators" prompts students to work independently on a subtraction problem, then share their strategies with the class. Students are encouraged to explain how they subtracted the fractions, justify why their representation or strategy is correct, and evaluate the effectiveness of different methods.

The *Teacher Guide* supports students in sharing and reflecting on their arguments, explanations, and justifications during instruction. The ELPS (English Language Proficiency Standards)-aligned Teacher Narratives provide guidance for teachers on facilitating discourse where students defend reasoning, compare strategies, and reflect on the strength of their explanations and justifications.

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

The *DreamBox* Insight Dashboard provides a lot of data on how the students are accessing and progressing within the program. The "Alerts and Achievements" section shows Standard Completed, Lesson Groups Completed, and May Need Attention groupings of students in the class/grade level, which provides a quick snapshot for the teacher to see where the students are currently performing. Additionally, the "Standards Report" provides a whole class view of which students have mastered standards, which ones are in progress, and which ones have not started a particular standard across the curriculum. While all these data points are valuable, there is educator guidance on how to address specific misconceptions within standards and what educators can do to anticipate misconceptions, as well as some guidance on how to assign specific tasks/activities to students and how to provide explanatory feedback for student misconceptions.

Through the Teacher Tool lesson provided through the Insight Dashboard, guidance is provided for educators on possible student responses to the prompts/lesson. Guidance is also provided on how educators might facilitate discussion and continue students' comprehension of the concept. Strategies that involve partnering students based on their demonstrated understanding, allowing opportunities to hear from multiple students, and encouraging students to come up with their own strategies are presented.

Materials contain a Teacher Resource entitled "Pieces from the Whole." In this Teacher Resource, educators are given common misconceptions that students may have throughout the lesson (e.g., "Some students may not understand how to make more than a whole. All of these misunderstandings present an opportunity for great math conversation in the next step."). After that misconception, the Teacher Resource also includes prompts to facilitate a group discussion connecting adding and subtracting fractions to composing and decomposing fractions and providing feedback on the listed misconception: "Reinforce that there are 3 whole shapes colored in, 2/3 of another shape, and 2/3 of another." This shows that the materials provide prompts for feedback based on student responses and anticipated misconceptions. Later on in the lesson, the resource provides guidance in providing feedback for student responses. However, it does not provide explanatory feedback for the anticipated misconceptions.