

HMH Education Company

Supplemental English Mathematics, 5

HMH Math 180 Texas Grade 5

MATERIAL TYPE	ISBN	FORMAT	ADAPTIVE/STATIC
Supplemental	9798202139482	Digital	Adaptive

Rating Overview

TEKS SCORE	TEKS BREAKOUTS ATTEMPTED	ERROR CORRECTIONS (IMRA Reviewers)	SUITABILITY NONCOMPLIANCE	SUITABILITY EXCELLENCE	PUBLIC FEEDBACK (COUNT)
100%	24	4	Flags Addressed	Not Applicable	0

Quality Rubric Section

RUBRIC SECTION	RAW SCORE	PERCENTAGE
1. Intentional Instructional Design	21 out of 21	100%
2. Progress Monitoring	19 out of 19	100%
3. Supports for All Learners	36 out of 37	97%
4. Depth and Coherence of Key Concepts	16 out of 16	100%
5. Balance of Conceptual and Procedural Understanding	38 out of 38	100%
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	1	0	0
2. Alignment with Public Education's Constitutional Goal	1	0	0
3. Parental Rights and Responsibilities	0	0	0
4. Prohibition on Forced Political Activity	1	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)	1	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	All criteria for guidance met.	2/2
1.1e	All criteria for guidance met.	2/2
—	TOTAL	14/14

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.

HMH *Math 180* includes an *Alignment Guide* for grade 5, outlining the Texas Essential Knowledge and Skills (TEKS), the English Language Proficiency Standards (ELPS), and concepts covered with a path toward algebra readiness. Activities for a given TEKS or ELPS can be found by clicking a link under a given TEKS standard or ELPS in the *Math 180 Alignment Guide*.

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.

Math 180 for grades 3–5 includes a *Program Guide* that is presented at the beginning of the teacher-facing materials, which includes an implementation guide providing various structures in which the materials can be implemented. Examples include rotations, whole-group lessons, and shortened periods. Using adaptive learning technology, the program is designed to provide every student with a personalized learning experience each time they log into their dashboard. This includes situated instruction, problem-solving, and skill-centered digital games. One activity called "Brain Arcade" continuously adjusts the learning path based on student progress and includes differentiated real-world application tasks for students at different stages of learning.

Each series contains a "Teaching Guide" that provides educators with instructional strategies or optional lessons for use during small-group practice. Within the "Teaching Guide" for the "Decimals" Block for grade 5, there are "High Level Patterns of Practice" within each lesson, providing just-in-time support—

especially addressing misconceptions and challenges—to personalize instruction in small groups based on students' proficiency levels.

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

The HMH Ed website has an "Assessment Standards Report" that provides results from the "mSkills Assessments" for HMH *Math 180* blocks in a series. The results are correlated to the TEKS. Educators can look at the TEKS and obtain a report on students that are below level, on level, and above level for a TEKS in a mathematics domain covered in HMH *Math 180*. These diagnostic results offer recommendations for skill entry points for the TEKS covered in the materials.

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

HMH *Math 180* for grades 3–8 includes protocols with corresponding guidance for lesson and unit implementation. The "Teaching Guide" provides unit internalization by previewing the unit with key standards, unit objectives, vocabulary, materials, and assessments, as well as providing the learning progression. Activities are also included for students to complete within the learning progression, such as Do Now, Guided Practice, Practice in Pairs, Exit Ticket, and High-Leverage Practices. These help teachers challenge all levels in small groups. The "Teaching Guide" also has a process for educators to thoroughly understand and prepare to teach lessons, with annotations, checks for understanding, and success criteria. "Professional Learning" sections are provided in each series, explaining the learning progression and giving explanations and examples of strategies taught.

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

An "All About HMH *Math 180*" document is available in the "Program Support" section on the HMH Ed dashboard, providing an overview of the program and instructions on how to use it in different classroom settings. The *Program Guide* offers suggested instructional time frames that educators and coaches can choose to best fit the mathematical instructional day for their students and campus. It also includes multiple data analysis tools, such as mSpace Progress Monitoring and the mSkills assessment. The guide also explains how to read and interpret testing data. Instructional leaders can use these resources to support team meetings and coach educators on how to continue using the materials as intended.

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.

Each lesson in *Math 180* contains objectives that are not explicitly stated in the language of the TEKS in the "Teaching Guide"; however, the *Alignment Guide* provides the TEKS and ELPS for lessons within the content for grade levels 3–5. Every lesson within a block of a series begins with a 10-minute introductory video, followed by segments such as discussion, group lesson, guided group practice, partner practice, and an independent Exit Ticket aligned with the lesson's objective. The *Program Guide* offers a Flexible Implementation Model for different times and days for math lesson blocks that explain the Blended Learning Experience. On the *Math 180* dashboard, educators can browse "Teachers Resources" materials by the TEKS number.

The materials do include guidance on the ELPS expectations for assessments. The assessments align with the TEKS and ELPS within the scope of the *Math 180* program. The *Math 180 Alignment Guide* for grades 3–5 lists the ELPS and TEKS numbers for lessons in a series. The "Teaching Guide" for each series includes a language goal with mathematical thinking that is aligned to the ELPS. Some lessons in a series feature "Language Support at a Glance" to assist multilingual learners. This document details the ELPS language expectations and offers strategies that leverage linguistic assets and differentiate by language for all proficiency levels included in the ELPS. Nonetheless, educators must understand how to apply this to other lessons within the series.

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

The materials include strategies for supporting students and providing progress updates for families in English, but not in Spanish. *Math 180* for grades 3–5 communicates with families through letters in

English that contain detailed suggestions on how they can support their students' understanding of the concept focus and procedural skills in each block of a series. In the letter from the "Multiplication Series," the teacher outlines instructional goals for both the teacher and students related to the procedural skill of multiplication. A list of strategies is provided, such as learning to use the factors of a number, with detailed graphics and mathematical language to describe the procedure being used.

Math 180 provides a "Math 180 Progress Update" to support families in English—for each lesson in a topic within a series—regarding their student's progress.

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	Materials include assessments. Assessments are not designed to be digital assessments or digital assessments are not designed for print. The materials do not include content and language supports that educators can enable or disable to support individual students.	Not Scored
2.1d	All criteria for guidance met.	4/4
2.1e	All criteria for guidance met.	4/4
—	TOTAL	12/12

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

Math 180 provides a road map that gives the assessment tool's name, as well as a description of the tool and its purpose, and informs teachers about what is being assessed.

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

The *Math 180 Program Guide* offers clear guidance for consistent and accurate administration of the mSkills assessments found at the end of each instructional block. Before assessment assignments, reminders are included for students to review the Mindset Strategy, Card Sort, Sum It Up, and mSkills Strategy lessons. Detailed instructions on how to assign the mSkills assessments to students are provided. Each mSkills assessment has 20 questions of various item-type formats that can be completed within a class period or a testing window, as directed by the teacher, to allow students to work at their own pace. Though the time it takes to complete the assessment varies, most students complete the test in 45–60 minutes. These clear guidelines allow students to receive their assessment with the same instructions and testing environments, leading to more reliable and comparable results.

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 materials do not include accommodations for content and language supports to be enabled or disabled to support individual students.

Text-to-speech and calculator accommodations are available in all program assessments. Each of the stated accommodations can be delivered to individual students or the entire class in all program assessments.

There are printable PDFs available for the "Baseline 1" and "Baseline 2" digital assessments. The mSkills assessments are provided in a printable version and are identical to the digital assessment. For example, the "Multiplication and Division Series" contains a printable version of the mSkills Digital Assessment available to students online. The mSkills Digital Assessment can also be viewed on the HMH Ed website by clicking "Categories," then clicking "Assessments."

By going to "Class Settings" on HMH Ed, teachers can enable or disable the calculator for an individual student or the class.

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

Math 180 includes diagnostic assessments with TEKS-aligned tasks or questions, including interactive item types with varying levels of complexity. In grade 5, Depth of Knowledge (DOK) 1: "Recall," the items involve basic recall of math facts or procedures. The following are examples:

"Which fraction is equivalent to $\frac{6}{8}$?" (requires recognition of equivalent fractions)

"Which is another way of writing $3 \div 2$?" (requires recognition of a fraction representing division)

"Which temperature is the lowest?" (simple comparison of numeric value)

In DOK 2: "Skills and Concepts," the items require applying models or procedures in familiar contexts. The following are examples:

"Pedro planted 6 rows of flowers. Each row had 18 flowers. Which shows how many flowers did Pedro plant?" (applies multiplication in a real-world context)

"Jamila had 12 pencils. She lost 9. What fraction of her pencils did she lose?" (applies subtraction and fraction concepts)

"Which model represents the sum of $0.5 + 0.29$?" (requires interpreting a visual model to match a decimal sum)

In DOK 3: "Strategic Thinking," the items require reasoning across multiple steps or concepts. The following are examples:

"A car wash collected \$320 to wash 25 cars and some trucks. Cars cost \$8 and trucks \$10. How many trucks were washed?" (requires setting up and solving a multistep word problem with reasoning about operations)

"A bakery made 140 buns. A restaurant bought 80. The rest were bagged in groups of 4. How many bags?" (involves subtraction and division, with reasoning about quantities)

The *Math 180* mSkills Interactive Assessments offer multiple interactive item types, such as text entry, drag-and-drop, multi-select, and multiple-choice questions.

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

Math 180 formative assessments have more than two levels of complexity, from DOK 1 to DOK 4, and have more than two unique interactive item types of questions, such as ordering, select-all-that-apply, and fill-in-the-blank.

The Performance Task titled "Fraction Concepts: Take the Chef's Challenge" contains varying question types and prompts that align with the TEKS in all four DOK levels. The instruction to "[f]ind groups of ingredients that you think would work well together in an appetizer, main course, and dessert" involves basic recall and categorization, aligning with DOK Level 1. Writing recipes using fractions and including ingredients from each food group reflects DOK Level 2, as these tasks require the application of fraction concepts and moderate reasoning. The following prompt meets DOK Level 3, involving justification, strategic thinking, and clear mathematical communication: "Explain how $\frac{3}{4}$ cup of milk could be split among two or three recipes. Include equations." Finally, "[r]ewrite one recipe so that it serves four people" exemplifies DOK Level 4, as it involves multistep problem-solving, proportional reasoning, and reflection on how to adapt quantities for new conditions.

Throughout *Math 180* learning pathways, students are provided with multiple scaffolded practice and assessment opportunities that are purposefully aligned to the TEKS. These activities progress in complexity, encouraging students to apply, analyze, and synthesize knowledge in ways that demonstrate deep understanding. Formative checks, Performance Tasks, and real-world problem-solving scenarios ensure that students engage meaningfully with TEKS-aligned content, which equips educators with actionable data that captures a broad range of student performance and understanding.

2.2 Data Analysis and Progress Monitoring

GUIDANCE	SCORE SUMMARY	RAW SCORE
2.2a	All criteria for guidance met.	3/3
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	7/7

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

The *Program Guide*, under the "Assessment, Progress Monitoring & Data" section, instructs educators on how to interpret student performance on assessments, reflect on levels of understanding and proficiency, and provide direction on what students need next.

The "Assessment Report" displays results from the mSkills assessments for the blocks assessed in a class. Results from this report are used to monitor student learning and provide ongoing feedback. Scoring provides teachers with a detailed breakdown of class and individual performance. The "Assessment Report" displays mSkills scores for all students. mSkills assessment results can be used to determine instructional pacing and to identify topics and objectives with which students experienced challenges. Teachers may confer about results with students, adjusting goals as needed.

Results from the "Standards Report" evaluate student performance against the TEKS to help inform small-group instruction. The "Standards Report" can be customized to provide guidance on determining students' strengths, weaknesses, and gaps; identifying common misconceptions; and setting performance goals in an Individualized Education Program.

Math 180 has Performance Tasks that assess the application of learned skills, reasoning, planning, analysis, judgment, and creative thought. A scoring rubric provides clear guidelines for interpreting student performance and responses.

Each mSkills assessment has an answer key that provides the "Assessment Rationales." These answer keys include a brief explanation of why each answer is correct or incorrect. For incorrect answers, the materials provide possible misconceptions. For example, in the "Decimals and Integers Series," Block 1 mSkills assessment, Question 20 explains that Option D is incorrect because "[t]he student may not have recognized that having multiple different values on the pan balance denotes addition (between the n values and the 6.25) rather than multiplication." It explains that Option C is correct because "[t]he

equation $8.45 = n + 6.25 + n$ directly represents the pan balance." A rationale is included for each correct and incorrect response.

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

Math 180 materials provide guidance for the use of student applications to respond to student trends in performance on assessments. The "Teacher's Corner" tab has a section under "Program Support." Within this area, there is an article titled "Program Activity Report (PAR) for Math 180." This article instructs teachers how to analyze the data to inform instruction. Teachers can customize the "Program Activity Report" to monitor class or individual student performance in the student applications. The materials include instructional guidance for tasks and activities to target various skills, as determined by assessment data. For example, teachers follow guidelines to group students based on assessment results and provide targeted activities to address specific skills.

Math 180 has a pathway for students to use based on performance data. Once students are placed in a series based on assessment data, they proceed to the "Zone" menu, which displays the three zones, and the "Brain Arcade" that they will work in as they progress through a block. Students must complete specific activities within a particular zone to unlock access to other zones. They start in the "Explore Zone," where they view the anchor video and complete a simulation, then go to the "Learn Zone" to complete tasks, and finally move to the "Success Zone." Once in the "Success Zone," students use their problem-solving abilities to apply learned concepts and skills.

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 *HMH Math 180 Program Guide* explains how teachers are able to track class and student progress and growth data over time in a data table. For Performance lessons, teachers can track the class needs and ensure that students' needs are being met. When discussing the importance of evaluating data from the student's view, the *Program Guide* states, "This personalized data is crucial for tailoring instruction to meet each student's unique needs and for tracking their progress over time."

HMH Ed is the educator dashboard that provides reports on student performance data for the different types of assessments, such as mSkills, and other student tasks. There is a class overview that tells educators how many students are considered "Not Yet" or "On Track." There is also a way to view individual student data to see how to specifically help students.

mSpace Progress Monitoring is provided throughout the lessons as a formative assessment tool. Multiple opportunities for quick checks allow teachers to track student progress and growth, such as in the Do Now, practice activities, and Exit Ticket within each series and block.

Students can view their learning progress when they have a conference with their teacher, as the teacher shares with them the "Summary," "Performance," and "Brain Arcade" reports at the student level. Students do not have access to data trackers unless one is provided by their teacher. The *Program Guide* states, "Compare these results with a teacher-created student log that students use to track their work (optional)." However, the materials do include a student progress tracker, both in English and Spanish, for each series and topic for students to check off if they are in the "Learn Zone" so that they can make it to the "Success Zone." Each series has a certificate that is to be provided to students upon completion of the specific series.

Math 180 does provide a student-friendly data tracker called "The Student Goal Setting Template," which is a reflection sheet that can be used with each assessment, allowing students to make note of their strengths and learning opportunities. The program encourages teachers to use the student-completed reflection sheets during one-on-one conferences with students to facilitate goal setting.

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.

The *Math 180* student application platform includes adaptive assessments that are embedded within each lesson, providing real-time data on student understanding, adjusting the lesson pacing and complexity based on student responses, and offering differentiated practice problems to reinforce skills. "Fast Track" is an accelerated path through each *Math 180* lesson that allows students to demonstrate mastery by correctly solving three challenging problems. Students have the option to "Fast Track" any lesson before beginning a new "Learn Zone" lesson or at any point during "Think," "Try," Practice, or "Master." If students do not demonstrate mastery in "Fast Track," they will automatically return to the "Learn Zone." In the "Learn Zone" of the student application, students work on their mastery of concepts with varying levels of scaffolding and feedback. The application progresses from guided to independent practice using visual models, corrective feedback, and support resources. Depending on performance, students receive 3–20 problems in each "Learn Zone" lesson.

In each series in *Math 180*, the lessons are laid out so that students complete a Do Now related to the lesson. Then, they see a worked example before having Guided Practice and a handful of practice problems. Then, they complete an Exit Ticket. These frequent checks for understanding allow teachers to continuously have feedback to adjust the difficulty of tasks as students progress through the material.

Three CheckPoint days are built within each block, one after each topic is covered. Teachers can use the data to determine a student's need for a Boost or Stretch lesson. This system provides teachers with

frequent checks for understanding throughout the lesson or activity, ensuring that misunderstandings are addressed before they become barriers to learning and allowing for adjustments in the difficulty of the task as students progress.

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 include content and language supports that educators can enable or disable to support individual students.	2/3
3.1e	All criteria for guidance met.	2/2
—	TOTAL	11/12

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.

Math 180 offers a video in the Teacher Success Pathway that provides clear guidance for teachers on lessons. Teachers are guided through the program, showing where (resources for differentiation), what (Resources for Differentiated Instruction [RDI] Index and RDI Lesson), and how (teacher pathway video) to use the curriculum to support students who have not yet achieved proficiency.

The lessons in the *Math 180* "Teaching Guide" include a section called "High-Leverage Practices," where teachers can modify and scaffold the language and activities for students in need.

The "Learn Zone" is part of *Math 180*'s online program with built-in algorithms that provide students with content, practice problems, and feedback based on their current level of understanding. The application gradually releases students from guided to independent practice using visual models, corrective feedback, and support resources. The "Learn Zone" has four sections: "Think," "Try," Practice, and "Master."

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

The *Program Guide* includes a section that provides pre-teaching support that educators should be implementing in each lesson in the Vocabulary Routine (VR). The VR explicitly provides teachers with consistent directions to introduce new math vocabulary during teacher-facilitated instruction. The *Program Guide* includes implementation tips, including reminders to do the following: pre-teach the

vocabulary and definitions on the teacher display using the "Routine" button on the whiteboard, encourage the students to use the terms in discussions, and use the terms consistently for repeated exposure. An online glossary is available in mSpace for teachers and students to use when needed.

To address educator guidance for supports for unfamiliar references in text, *Math 180* includes a "Language Support at a Glance" document. Additionally, there is a "Spanish Academic Language" document for each series. The "Language Support at a Glance" document provides sentence stems and offers differentiation based on students' varying levels of language proficiency.

The *Math 180* materials include a "Language Support at a Glance" section for each series block. In the "Decimals and Integers Series," Block 3, "Language Support at a Glance" outlines different structures based on students' language proficiency. Teachers are provided with guidance such as the following: "Practice using the prepositional phrases 'to the left of/right of' to describe the position of two numbers on the number line. Point to each number as you describe it."

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

The Performance Tasks include explicit educator guidance for enrichment activities for students who have demonstrated proficiency in grade-level content and skills. There are extensions to these activities for students who have demonstrated proficiency in above-grade-level content skills.

The *Math 180* materials include Stretch lessons to be used for students who have demonstrated mastery (as evidenced by the "Program Activity Report") and proficiency with above-grade-level content and skills. Students not identified as "Developing" or "Not Yet" are intended to use the Stretch lessons. For example, in the "Decimals and Integers Series," Block 2, Topic 1, students receive the following prompt from the educator: "Let's read the problem again carefully. What information do we have? How can we identify if each statement is true or false? Remember that there may be more than one answer to the problem." Students then practice determining which statements are true based on decimal place value and must explain their thinking.

The *RDI Guide* provides explicit *Math 180* adaptive online applications, including the "Fast Track" and the "Success Zone," which are extensions and enrichments for students on and above grade level. "Fast Track" automatically provides advanced learning paths for students who can answer three "Master"-level questions consecutively to skip to the next lesson. When students have mastered all of the "Learn Zone," they will unlock the "Success Zone," where they review the previous topic with a game board of choices.

Math 180 has a video in the Teacher Success Pathway that provides explicit teacher guidance for enrichment and extension activities. Teachers are given explicit guidance as to where enrichment and extension activities are located (resources for differentiation), unfold the meaning of the Resources for Differentiated Instruction Index and RDI Lessons, and see how (teacher pathway video) to use the *Math*

180 material to help students who have demonstrated proficiency in grade-level and above-grade-level content and skills.

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 materials do not include accommodations for content and language supports that can be enabled or disabled to support individual students.

Text-to-speech and calculator accommodations are available in all program assessments. Each of the stated accommodations can be delivered to individual students or the entire class in all program assessments.

Math 180 digital materials guide educators on how to enable or disable the calculator for the entire class and for individual students (this is done by going to the "My Classes" tab and selecting "Class Settings"). This allows the calculator to be used throughout the materials.

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 *Math 180* "Teaching Guide" for "Decimals and Integers," Block 1, Topic 2, Lesson 1 includes educator guidance to offer varied options and supports for students to demonstrate their understanding of multiplying decimals by whole numbers. The lesson plan has students estimate products, rename decimals as fractions, and calculate products using the distributive property. The lesson plan also gives teachers guidance on providing questions to drive discussions, allowing students to express their understanding orally and through written reasoning. The "Language Support" section guides teachers to explicitly connect math terms with representations and equations. Other support gives guidance on allowing students to work individually or in pairs. The "Modify Tasks" section has suggestions on how to simplify or extend problems if needed.

The *Math 180* materials contain rubrics for the Performance Tasks within each series for students to showcase their thinking. For example, in the "Decimals and Integers Series," Block 2 Performance Task, "Manage a Tutor Business," students must create a schedule and a table of figures showing hours and the amount paid. Students must also explain why each tutor was assigned their subject.

Math 180 provides a Performance Task where students apply math skills and concepts to solve real-world, career-related tasks involving more abstract reasoning. This is to be completed at the end of each block in a series. The materials include educator guidance in both the "Teaching Guide" and "mSpace Annotated" on how to allow students to demonstrate understanding by drawing models and using written explanations.

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.

Math 180 provides educators with direct prompts and guidance for teaching students and activating students' prior knowledge in the Connect portion of every lesson. In the "Decimals and Integers Series," Block 3, the Connect section explicitly instructs teachers on what to say. The curriculum then gives educators guidance on how to activate prior knowledge by referencing the example from Block 1, Topic 3, Lesson 1.

The Teacher Display Tools include the Connect feature, with the specific example that teachers are prompted to discuss from the previous "Concept" lesson. The pictorial representation allows teachers and students to highlight and connect key patterns, features, and relationships and contains visual models to support students in visualizing concepts and understanding how they connect to other mathematical concepts and skills.

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 a variety of methods and structures for intervention practice. For example, in the "Decimals and Integers Series," Block 2, Topic 2, Lesson 1 begins with a class brainteaser and a whole-group lesson. Students are given Guided Practice to work through with a partner before partner work and an independent Exit Ticket.

The RDI Index provides explicit instructions and recommendations for teachers to effectively implement multitiered intervention on CheckPoint days (after the fifth lesson in Topics 1 and 2 and after the mSkills assessment in Topic 3). After reviewing "Program Activity Report" data, teachers can create groups and choose assignments according to students' learning needs. Stretch lessons are designed for Tier 1 students, and Boost lessons are designed for Tier 2 and Tier 3 students. The RDI Index also gives guidance on which lessons are intended for individuals, pairs, or small groups.

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

Math 180 includes a Performance Task at the end of every block. Performance Tasks are higher-level thinking activities where students must insert themselves into real-world roles, providing great levels of engagement. The "Teaching Guide" provides instructions with explicit prompts that guide effective implementation of extension methods. For example, Block 1 of the "Decimals and Integers Series" has students acting in the role of athletic trainers preparing athletes for the next Olympic Games. Educators are provided with multiple prompts to serve as a springboard to activate students' thinking.

The RDI Guide provides explicit instructions and recommendations for teachers to effectively implement interventions on CheckPoint days, including how to choose enrichment (Stretch) and extension (Boost and Focus) activities. CheckPoint days occur after the fifth lesson in Topics 1 and 2 and after the mSkills assessment in Topic 3. After reviewing "Program Activity Report" data, teachers can create groups and choose assignments according to students' learning needs. An example is provided to show teachers one approach.

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

In the "Teaching Guide," teachers are provided with prompts, such as the following, to give when students may still have gaps: "If students struggle to divide whole numbers, Then review using multiplication to find quotients. How are multiplication and division related? How can I find 240 divided by 12 using multiplication?" These structured prompts enhance educators' ability to deliver timely feedback, improve engagement with students, and refine their instructional practices, leading to more responsive teaching.

The *Program Guide* includes guidance on how to implement instructional routines as informal assessments during discussions to adjust instruction and provide timely feedback after a task. Think-Pair-Share, Turn and Talk, Question Chains, Show of Thumbs, and Answers Up encourage active participation by all students, provide low-risk opportunities to engage in discussion and clarify misconceptions, give teachers insight into students' thought processes to gauge understanding, provide teachers with an opportunity to adjust instruction at any point during the lesson, and provide immediate feedback.

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	All criteria for guidance met.	4/4
3.3c	All criteria for guidance met.	1/1
3.3d	All criteria for guidance met.	8/8
3.3e	This guidance is not applicable to the program.	N/A
—	TOTAL	13/13

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.

In the "Decimals and Integers Series," Block 2, "Language Support at a Glance" offers linguistic accommodations for every language level. Teachers display, review, and rehearse explicit sentence frames using gestures and visuals to support students at Pre-production and Beginning levels. For students at Intermediate and High-Intermediate levels, teachers use helping verbs and add details from the problem using base verbs. These students discuss tasks with partners and evaluate solutions. The materials encourage them to use academic language and justify their reasoning. Advanced students use precise math language in complete sentences and suggest revisions to incorrect solutions. They explain and justify their answers orally and in writing.

Each series includes a "Topic at a Glance" document with language objectives and key academic terms. This document supports academic language development at every proficiency level, focusing on speaking skills and correct terminology. In the "Decimals and Integers Series," Block 1, the materials guide

educators to help Pre-production and Beginning students use sentence frames, reading aloud with them. Some sentence frames use conjunctions to compare numbers and build academic vocabulary.

In the "Learn Zone," students can toggle between English and Spanish. Students can also play the lesson video in Spanish. These features support students at all language proficiency levels, from Pre-production to Advanced.

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

The "Teacher's Corner" in *Math 180* includes a "Discourse" section featuring video explanations of the language development materials, along with modeled lessons that demonstrate strategies, such as leading discussions, vocabulary building, and Think-Pair-Share. Each block within a series provides a "Language Support at a Glance" document to help educators implement the state-approved ELPS effectively, offering practical tips for scaffolding content and language development differentiated by language proficiency.

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

The *Math 180* "Integrating Language Routines Into Instruction" material provides educators with guidance on how to support emergent bilingual (EB) students with structured opportunities to expand content-specific vocabulary, boost comprehension, and build background knowledge through oral and written academic discourse. It also supports making crosslinguistic connections through oral discourse. The "Compare and Connect" routine helps EB students find similarities and differences between math strategies or representations. "Critique, Correct, and Clarify" provides students with opportunities to analyze and revise flawed math explanations and encourages deeper comprehension with both content and language. "Stronger and Clearer Each Time" guides students through structured conversations in which they articulate and revise their mathematical ideas orally. The repeated verbal rehearsal supports language development and fosters academic vocabulary use and oral and written discourse fluency. The "Three Reads" strategy scaffolds students' reading comprehension and interpretation of math word problems through repeated readings with distinct purposes.

The "Three Reads" strategy can be utilized with EB students to make crosslinguistic connections through oral discourse. This allows EB students to make sense of both the everyday and mathematical language used in the problems, which they can relate to equivalent structures in their home language through oral discourse.

Math 180 provides the "Language Support at a Glance" document, which gives educators guidance in partnering students that share a home language and encouraging them to first introduce concepts to each other through oral discourse using their home language and a variety of language structures, such

as connecting words (ELPS 2C). The materials do give guidance for crosslinguistic connections through written discourse in "Language Support at a Glance."

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.

Practice opportunities throughout learning pathways require students to demonstrate a depth of understanding aligned to the TEKS.

Each series builds complexity in the materials presented and in practice opportunities. For example, in the "Decimals and Integers Series," Block 1, Topic 1, Lesson 1 begins with students naming decimal parts, such as tenths and hundredths, using models on paper (i.e., paper divided into tenths and a hundred squares). The series builds to students naming decimals in multiple ways. Topic 3, Lesson 2, has students comparing decimals on a number line, using models, and renaming the decimals within the same place value.

In the "Decimals and Integers Series," Topic 3, the Performance Task titled "Train Olympic Athletes" requires students to choose target distances and create a graph based on the times, ordered in a least-to-greatest format. A rubric is provided to assess student understanding and performance.

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.

Throughout the *Math 180* learning pathways, students are provided with multiple scaffolded practice and assessment opportunities that are purposefully aligned to the TEKS. These activities progress in complexity, encouraging students to apply, analyze, and synthesize knowledge in ways that demonstrate deep understanding. Formative checks, Performance Tasks, and real-world problem-solving scenarios ensure that students engage meaningfully with TEKS-aligned content. RDI are provided for teachers to use during interventions (Boost lessons) to reinforce foundational skills with routine problems or as an extension (Stretch lessons) to challenge students with nonroutine problems to extend skills.

The Stretch lesson "Solve Complex Division Problems" demonstrates a clear increase in rigor and complexity, supporting both grade-level and above-grade-level proficiency in alignment with the TEKS. The Stretch lesson allows students to solve balance-scale problems, where they must write and solve equations to find the value of a variable representing a fractional weight. Reinforcement of foundational algebraic thinking is achieved by visualizing equivalent expressions in the context of real-world situations. The lesson extends the rigor with some problems that require interpreting and solving multistep balance scenarios involving multiple fractional components and units. Students are asked to reflect on how solving balance problems helped them understand equivalence and justification to support mathematical communication. Then, they choose a strategy to solve a problem that will improve their learning.

4.2 Coherence of Key Concepts

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

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

The *Math 180* "Teaching Guide" for the "Decimals and Integers Series" lists the learning progression and connections to other concepts in each lesson within a grade level. The Block 1 Topic 1, overview highlights the connections to prior and future lessons. For example, in grade 5, the learning progressions list the current objectives (express numbers in tenths and hundredths as decimals, express fractions less than 1 as decimals, express decimals in equivalent forms, and use decimals to solve problems) that will lead to connections with other grade-level standards (understand that integers can be divided and every quotient of integers is a rational number).

Within teacher- and student-facing materials, a "Why This Matters" section is included to provide context and relevance to the lesson being taught. The materials contain a "Why This Matters" statement: "Making estimates helps students assess answers to calculations, evaluate everyday situations, and find and fix errors."

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

The *Math 180* scope and sequence is built around a curriculum that enables students to progress toward grade-level standards and algebra readiness. The "Program Overview" has a concept map that demonstrates coherence vertically across concepts and grade bands, including connections from grades K–6, by connecting patterns, big ideas, and relationships. For example, in the grade 5 "Decimals and Integers Series," the learning progression begins with the grade 3 and grade 4 prerequisites of performing arithmetic with whole numbers, decimals, and fractions, then leads to using ratio reasoning to solve problems in grade 6.

Alignment Guides are available for each grade level within the "Teacher Materials." Using these guides, teachers can determine connections made within the materials across grade levels.

Throughout the *Program Guide*, teachers are presented with how the materials are designed to prepare students for the Algebra 1 course. The adaptive program allows students to move in and out of the series they are placed in, with a predictable series structure to ensure that students are successful.

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.

The *Math 180* "Teaching Guide" for the "Decimals and Integers Series" lists the learning progression and connections to other concepts in each lesson within a grade level. The Block 1, Topic 1, overview highlights the connections to prior and future lessons. For example, in grade 5, the learning progressions list the current objectives (express numbers in tenths and hundredths as decimals, express fractions less than 1 as decimals, express decimals in equivalent forms, and use decimals to solve problems) that will lead to connections with other grade-level standards (understand that integers can be divided and every quotient of integers is a rational number).

The learning progressions provided at the beginning of each block within a series create coherence across lessons and activities. Students are required to build upon prior knowledge to continue to move through the series and be successful. For example, students begin by multiplying by 10 and examining the patterns that emerge. The educator explains that when multiplying by 10, there will always be a zero in the ones place. Students use this knowledge to connect what happens when multiplying by 100 and 1,000. Then, students move into division and relate the pattern to the movement of the decimal.

In the *Math 180* "Teaching Guide" for the "Decimals and Integers Series," there is a "Block at a Glance" that overviews how each lesson builds upon the last one. For example, Block 1, Topic 1, is "Fraction and Decimal Relationships." Within this topic, students must name fractions using decimal notation, then name fractions as decimals before they develop reasoning with decimals with a game. Students continue to express decimals in more than one way before building their mastery with problem-solving. At the end of each block, students tie together all of their learning with a Performance Task that utilizes all the skills learned within the block.

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.

The *Math 180* mSkills assessment decimal and integer assessment revisits skills learned at the beginning, middle, and end of the lesson. This provides students with a spaced retrieval opportunity to revisit skills previously taught in a timelier manner.

Within each lesson, a Do Now section contains a practice/retrieval activity connected to the concept and learning for the day. In the *Math 180* "Decimals and Integers Series," Block 2, Topic 2, Lesson 3 contains a Do Now activity that requires students to estimate products of multiplication expressions that contain decimals. Students must pick which product does not belong after their estimation and multiplication.

Students must play the "Brain Arcade" daily. In the "Brain Arcade," students have the opportunity to practice facts, perform quick multi-digit operations, and more. These opportunities provide continuous assessment of student progress, helping educators adjust their teaching strategies as they review the report. As students finish a topic, they have access to the "Success Zone," where they solve problems that review previous topics.

Multiple components of the student application ("Learn Zone," "Success Zone," and "Brain Arcade") provide spaced retrieval opportunities with previously learned skills and concepts across learning pathways. In the "Master" portion of the "Learn Zone," students demonstrate mastery of a new concept, skill, or strategy and review problems from prior lessons. After students master the lessons in a topic in the "Learn Zone," the "Success Zone" unlocks a game board that students can use to review the topic. The "Brain Arcade" helps students practice their fluency with procedural math skills.

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

The *Math 180* "Decimals and Integers Series Teaching Guide" provides a "Block at a Glance" for each block in a series. The "Block at a Glance" is a visual map of the lessons within the three topics, with an example of the strategy students are introduced to in each lesson. In grade 5, the mSpace lessons provide various strategies for fraction and decimal relationships, including using decimal grids, number lines, equations, the division standard algorithm, and Venn diagrams. Through the learning progression, students learn

more than one strategy to solve fraction and decimal relationship problems and engage in problem sets that require understanding word problems to plan whether to use an appropriate strategy.

In the *Math 180* "Decimals and Integers Series," students use area models to divide decimals. Teachers are provided with a guiding question: "To divide 2 wholes by 2 tenths, I ask myself, 'How many groups of 2 tenths are in 2?'"

In each series, students can complete a Card Sort, which provides interleaved practice. For example, in Card Sort: "Decimals and Place Value," students group cards based on a rule or commonality. This allows students to think flexibly about fractions, decimals, and visual representation.

The *Program Guide* explains the purpose behind each segment of the *Math 180* materials. These explanations explicitly identify the use of previously taught concepts. Do Now is designed to engage students at the start of each lesson. These activities involve quick, focused tasks that help students review previous concepts and prepare for new learning. Concept lessons help students connect previously learned concepts, build new understandings, and acquire skills. Lessons are designed to build students' conceptual understanding of math. "Problem-Solving" lessons are in all blocks. Students apply conceptual understanding to new problem situations through multistep and contextualized problems, which allows them to interpret, analyze, and evaluate mathematical concepts and complex, real-world situations. In "Game" lessons, with two or three games per block, students engage in collaborative practice to help build fluency and flexibility with learning objectives from "Concept" lessons.

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.

In the *Math 180* "Decimals and Integers Series," Block 3, Topic 3, Lesson 5 provides multiple opportunities for students to interpret, analyze, and evaluate models and representations as they solve real-world problems using bar models and decimal operations. Students are asked to interpret bar models that represent parts of a whole using fractions (e.g., $\frac{3}{4}$ of Ken's earnings) and decimal models. In the "Who Is Right?" task, students must evaluate Jenna and Anna's different solution strategies and justify which is correct based on decimal representation.

Math 180 provides opportunities for students to interpret, analyze, and evaluate mathematical concepts within a Performance Task to solve real-world, career-related tasks involving more abstract reasoning. Performance Tasks are completed at the end of each block in a series. The materials include educator guidance in both the "Teaching Guide" and "mSpace Annotated" on how to allow students to demonstrate understanding by drawing models and using written explanations.

In *Math 180*, students are shown a scale to visually represent an equation. Students must then write an equation for the problem before solving it. This task provides students with the opportunity to interpret a model to better understand how to solve decimal problems with equivalence.

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

In the *Math 180* "Decimals and Integers Series," Block 2, Topic 1, Lesson 5, students add and subtract decimals to solve multistep problems. Students are given a word problem to analyze and determine the appropriate strategy to use to solve. The strategy chosen is that of part-part-whole. Students then use strip diagrams to model their thinking, and they must evaluate their work by checking for accuracy.

In the *Math 180* "Decimals and Integers Series," Block 2, Topic 3, Lesson 5 provides multiple opportunities for students to use models and representations to solve real-world problems using bar models and

equations. Students are asked to create bar models that represent equal parts of a whole using fractions and decimals.

In the *Math 180* "Decimals and Integers Series," Block 2, Topic 1, Lesson 3, students create their own open number line to create an estimate and solve the problem given in the Exit Ticket. Students then determine if their answer is reasonable based on the number line they create and which benchmark they jumped to first in solving the problem.

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

The *Math 180* "Explore Zone" has simulations where students make choices in real-world scenarios and determine how their choices influence the math. Students are aquarium architects who are tasked with attracting tourism to the city by designing exhibits with a variety of species based on their habitat and characteristics (e.g., size as a fraction of the tank, preferences, and popularity). Students must pick species for the surface, reef, and floor of the tank in combinations that will make one whole, using their skills of addition with unlike denominators. Feedback is given at the end.

In the *Math 180* "Decimals and Integers Series," Block 2, Topic 2, Lesson 1, students are given a brainteaser. Students must use the given list of numbers, organizing them into factor pairs that all have the same product. Teachers provide guiding questions to assist students in their analysis.

The *Math 180* Performance Task at the end of each block of a series provides a direct correlation for students to see math at work in real-life situations. In the "Decimals and Integers Series," Block 2, students are tasked with managing a tutoring business. Students apply their knowledge of decimals, including tenths and hundredths, to create a work schedule for the amount of time employees work and calculate their wages.

5.2 Development of Fluency

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

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

The "Brain Arcade" provides a multitude of games that are designed to help students become fluid, fluent, and flexible. All games are divided into chapters that are then divided into levels, which progress in difficulty. Educators and students can use "Brain Arcade" recommendations by series, block, and topic to focus on specific skills that align with daily lessons. For example, the game "Jelly Drop" aligns with the "Decimals and Integers Series" and involves building fluency and automaticity by helping students relate the numerical representation of a fraction with unit representations.

In the "Decimals and Integers Series," students add decimals using decimal and fraction notation. The grade-level connection that promotes fluency states that "adding decimals up to the hundredths place prepares students to flexibly reason how to simplify any expression of rational numbers whether the student chooses decimal or fractional notational form."

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

The *Math 180* "Teaching Guide" for the "Decimals and Integers Series" features a "Block at a Glance," which provides a visual map of the lessons within the three topics, with an example of the strategy students are introduced to in each lesson. In grade 5, the mSpace lessons provide various strategies for fraction and decimal relationships, including using decimal grids, number lines, equations, the division standard algorithm, and Venn diagrams. Through the learning pathway, students learn more than one strategy to solve fraction and decimal relationship problems and engage in problem sets that require understanding word problems to plan whether to use an appropriate strategy.

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

The *Math 180 Program Guide* explains how the curriculum offers "Comprehensive Support for Students." This information is listed under "Program Overview" and details student opportunities to evaluate

mathematical representations, models, strategies, and solutions for efficiency, flexibility, and accuracy through the use of the following sections: "Learn Zone," "Instructional Videos," "My Examples," "Think Aloud," "Targeted Suggestions," "Answer Reveal," and "Success Zone."

The "Brain Arcade" offers adaptive math games that support students in developing and evaluating efficient, flexible, and accurate computational strategies. Games are organized by number type, operation, and level of complexity, allowing students to explore various mathematical representations and procedures across chapters. Within each chapter, games increase in difficulty, guiding students to apply prior knowledge in new contexts. As students demonstrate procedural fluency, they unlock higher levels of the game, encouraging reflection on the accuracy and efficiency of their problem-solving approaches.

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

In the *Math 180* "Fractions Series," "Learn Zone" lessons guide students to identify equivalent fractions. Students are guided to use tiles to build equivalent fractions, draw pictorial models, and write equations of equality for the fractions built. As they become proficient in this strategy, students are introduced to other strategies. The application progresses from guided to independent practice using visual models, corrective feedback, and support resources. As students progress through the program, support is given in recognizing patterns and selecting more efficient approaches to solve problems fluently in different contexts.

In the RDI Index, there is a "Strategy Bank" that suggests one strategy per lesson for application in a contextualized problem. This encourages teachers to help students compare strategies and choose more efficient ones during Boost or Stretch lessons.

5.3 Balance of Conceptual Understanding and Procedural Fluency

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.3a	All criteria for guidance met.	2/2
5.3b	All criteria for guidance met.	3/3
5.3c	All criteria for guidance met.	6/6
—	TOTAL	11/11

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

The "Learning Matrix" in the *Math 180 Program Guide* clearly highlights the program's focus on both concepts and procedures. Additionally, the *Math 180 Alignment Guide* offers direct links to sample lessons in which the TEKS are covered, including notes that specify how each lesson promotes conceptual understanding and procedural skills.

In the *Math 180 "Teaching Guide,"* teachers are specifically instructed to include "Why This Matters" at the start of each lesson. In grade 5, "[n]aming a number in multiple ways helps students become more efficient at solving problems involving decimals." The clear link between naming a number and improving problem-solving skills supports conceptual understanding. The "Block at a Glance" provides a procedural overview of how a TEK will be addressed. The progression for understanding decimal operations begins with applying place value to add decimals, then multiplying decimals greater than one, and finally using patterns to divide decimals.

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

The TEKS selected for the grade 5 series only call for pictorial or abstract models, not concrete models. The materials do provide opportunities for students to use pictorial and abstract models. In the "Decimals and Integers Series," students are instructed to draw a model of the presented word problem. Using a decimal grid, students shade in the amounts from the problem to determine their solution and then write an equation to represent the action in the problem. This task offers opportunities for students to use pictorial representations and abstract models.

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

The materials in the "Decimals and Integers Series" do not fully support students in connecting, defining, and explaining concrete models to abstract concepts, as the TEKS require, because *Math 180* includes the TEKS that support students in connecting representational models to abstract concepts. The TEKS

involving concrete models are not covered within the scope of the materials for the *Math 180* "Decimals and Integers Series" supplementary program. In the "Decimals and Integers Series," students make connections using visual models to abstract concepts as they sketch decimal grids to model fractions and write equivalent numeric expressions, reinforcing the use of visual models to abstract concepts, as required by the TEKS. The lesson explicitly prompts students to explain how the visual model represents the numeric expression, using sentence frames and discussion prompts embedded throughout the lesson.

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.

Math 180 allows students to further develop their academic mathematical language throughout the "Learn" Zone portion of the curriculum. Block 1, Topic 1, Lesson 3: "Express Decimals in More Than One Way," can orally walk students through the process of representing a decimal in multiple ways. Students name a mixed fraction using the visual decimal grid. For assistance, students may also choose the mTool, Think Video, or Example Problem to help them complete the task. Language development is increased by allowing students to use the accessible online glossary for assistance in identifying unfamiliar academic vocabulary.

The *Math 180* materials include integrated opportunities to develop academic math language through lesson plans with specific language goals and interactive "Teaching Guides" with practical tips for scaffolding content and language development (e.g., sentence frames, partner talk, and VRs) and using visual representations and manipulatives.

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 "Decimals and Integers Series," the "High-Leverage Practices" section provides the following embedded scaffold for educators to use in developing academic mathematical language: "If students confuse tenths and hundredths places in decimals, then discuss specific examples. What are two ways to write one-tenth as a decimal? How do I write one-hundredth? Why do you need to write a zero before the decimal point?" The scaffolds support educators in having students communicate with them and their peers.

The *Math 180 Program Guide* includes a section that provides pre-teaching support that educators should be implementing in each lesson in the VR. The VR explicitly provides educators with consistent directions to introduce new math vocabulary during teacher-facilitated instruction. The *Program Guide* includes implementation tips, including reminders to do the following: pre-teach the vocabulary and definitions on

the teacher display using the "Routine" button on the whiteboard, encourage the students to use the terms in discussions, and use the terms consistently for repeated exposure to ensure development of academic vocabulary.

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

Appropriate mathematical discourse is encouraged, with embedded guidance in the *Math 180* "Decimals and Integers Series," Block 2, Topic 1, Lesson 1, where instructors are prompted to lead a discussion in which students can connect the relationship between adding whole numbers and decimals. Instructors are prompted to ask the following questions: "How is adding decimals like adding whole numbers? Why is place value important in both kinds of addition problems?"

All lessons in *Math 180* include a scripted think-aloud in which educators model how to use academic vocabulary. After the think-aloud, the materials provide questioning strategies to engage students in academic discourse, such as "Why cannot we rename $\frac{1}{4}$ with 10 as the denominator? How can we rename $\frac{1}{4}$ with 100 as the denominator?"

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

In the *Math 180* "Decimals and Integers Series," students sort fractions and decimals using a Venn diagram based on predetermined categories. Using the Turn and Talk structure, students are guided by the educator to discuss the following prompt with a partner: "Rename $\frac{7}{10}$ and $\frac{2}{5}$ as fractions with denominators of 100" ($\frac{70}{100}$ and $\frac{40}{100}$). The educator is then prompted to "[a]sk a student to record the fractions on screen and have the students record them in their mSpaces."

The *Math 180* curriculum provides explicit guidance for educators to use the embedded prompts in each lesson for math class discussions. Through video demonstrations, effective instructional strategies (e.g., discussion, vocabulary, language development, Think-Pair-Share, and Turn and Talk) are modeled by educators with their students. These discourse strategies allow students to hear, refine, and use math language with peers and educators.

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.

The "Learn Zone" in the *Math 180* materials includes automated feedback on student responses. If a student provides an incorrect answer, the digital platform will provide the correct answer and then provide students with the opportunity to correct their answer. If students continue to make mistakes, step-by-step Example Problems will pop up to support or redirect student responses to the correct answers. Exemplar responses are available in the Example Problem.

Math 180 offers a redirect for inaccurate student responses within the "High-Leverage Practices" box called "Modify Tasks." The "Modify Task" in the "Decimals and Integers Series" Block 3, Topic 2, Lesson 1, says the following: "If students need help understanding how the number line shows adding two quantities, then demonstrate with objects. Use a ruler as a number line and two objects to represent two addends. Demonstrate how placing the objects end to end will give you the length of the objects combined."

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.

In the "Decimals and Integers Series," students use a Venn diagram to organize and communicate mathematical reasoning to determine numbers greater or less than given numbers. Students explain and justify their thinking throughout the lesson.

In the "Decimals and Integers Series," students solve problems involving positive and negative numbers (content) using open number lines (process). Students apply TEKS-aligned process standards, such as modeling with mathematics (process), selecting tools (process), and justifying and explaining mathematical ideas and arguments using precise mathematical language.

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

Each block in the *Math 180* series integrates process standards throughout its lessons. Lessons start with a Do Now activity for students to evaluate and explain reasoning, followed by whole-group instruction using models and tools for communication. For example, in the "Decimals and Integers Series," Block 1, Topic 3, Lesson 1, students use thumbs-up, thumbs-down, and number lines to assess and justify expressions. Every fifth lesson features problem-solving tasks that reinforce process standards across topics.

In *Math 180*, the fifth lesson of each topic focuses on a problem-solving model that is consistent with content and vocabulary objectives in that topic. Educators are provided with guidance, including prompts and strategies for using mathematical tools. Students are prompted to explore multiple approaches and justify their solutions. Problem-solving activities in every fifth lesson of a topic are designed to connect process standards across the learning pathways.

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

The Math 180 program includes an Alignment Guide that lists all the TEKS process standards by grade level that are covered in the program. There are direct links to each lesson in which the TEKS and ELPS are addressed.

Materials provide relevant activities for the process standards. Each process standard has two to four resources linked to parts of the program, including mSpace, Exit Ticket, Performance Tasks, Do Now, or Guided Practice.

The "Teaching Guides" have mathematical thinking skills, which correlate to the TEKS process standards, listed in each lesson.

6. Productive Struggle

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

6.1 Student Self-Efficacy

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

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

The materials allow students to think mathematically, understand models and representations involving decimal division, and persist in problem-solving. Students interpret and analyze decimal grid models to represent problems—such as figuring out how many groups of .20 are in 2—which builds conceptual understanding through visual reasoning. They rename decimals as fractions, use common denominators to analyze equivalence, and explain the relationships among the dividend, divisor, and quotient. Students are expected to evaluate the reasonableness of their answers by applying inverse operations and comparing the quotient to the size of the divisor and dividend. Students reflect on patterns—such as why dividing by a decimal less than one results in a larger quotient—which supports mathematical reasoning and perseverance in problem-solving.

Do Now exercises allow students to think mathematically. In this example, students practice repeated reasoning. In the "Decimals and Integers Series," students apply number sense as they determine the best way to rearrange five integers to add. While students view this information in mSpace, teachers are prompted to ask students to share their solutions, guide students to analyze the problem further, and ask questions, such as the following: "How does adding the numbers in a specific order make it easier to add? Is there another way you could arrange the numbers?" Teachers support students with questioning, and students check their work after answering the first question. Students work through a series of similar problems with a partner before solving the Exit Ticket on their own. For the Exit Ticket, students are expected to think mathematically and use tools strategically, such as using an open vertical number line to represent a problem.

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

In the "Decimals and Integers Series," students use various strategies learned throughout the unit to solve multistep decimal problems. They work with a partner and choose their preferred method, such as

a number line, a standard algorithm, or strip diagrams. Students then discuss and justify their solutions with peers and the educator.

Do Now exercises allow students to understand, explain, and justify that there can be multiple ways to solve problems and complete tasks. Students analyze and compare two different solutions to a decimal division problem, determine which is correct, and justify their reasoning using place value and conceptual understanding. Students explore different approaches, such as renaming decimals as hundredths or using equivalent fractions. They engage in meaningful mathematical reasoning by discussing possible misconceptions and using inverse equations to verify solutions. This task encourages flexible thinking and demonstrates that there are multiple valid strategies for solving and checking division problems.

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.

Think-Pair-Share is a structured discussion method used across a series. It involves students independently reflecting on a question, problem, or task using sentence stems. Then, students pair up to share and discuss their ideas. Think-Pair-Share helps students to do, discuss, and write about math with peers and allows them to justify their solutions with educators.

The materials are designed to help students understand mathematics through multiple opportunities to do math, write about it, and discuss it. For example, in the Performance Task of the "Decimals and Integers Series," students use various strategies learned from the block to answer the following prompt: "In today's Performance Task, you are athletic trainers helping athletes prepare for the next Olympic Games. You will compare decimals and make line graphs." Students are grouped by mixed abilities and discuss their potential solutions. At the end of the Performance Task, students share findings with peers and write about their experiences.

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.

Turn and Talks are embedded throughout a series. Educators are prompted to have students share their problem-solving approaches, including explanations, arguments, and justifications.

The materials support educators in guiding students to share and reflect on their problem-solving approaches by incorporating "High-Leverage Practices" that promote explanation, justification, and mathematical discourse. Educators are provided with scaffolded questions, targeted responses to misconceptions, and task modifications that help students articulate their thinking. For example, renaming decimals as fractions supports conceptual understanding, while prompts like "What is your first step?" or "How do you know how many parts to divide the bar into?" encourage students to explain their thinking. These practices provide differentiated supports that prompt students to verbalize their thought processes and engage in meaningful peer discussions using explanations, arguments, and justifications.

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

The materials prompt teachers through a view of the student pages. The materials give generic prompts for when to intervene if students are struggling, such as the following: "If they are confusing this, try this."

The materials include answer keys for all assessments given in mSpace. The answer keys include rationales for all multiple-choice problems. The following is an example of a given rationale on one incorrect answer about whether a table is proportional: "The student may not understand how to get a ratio from an x/y table."

The materials include a "High-Leverage Practice" section in each lesson that provides guidance to teachers on how to redirect students if students are answering questions incorrectly. The following is an example from a "High-Leverage Practice" box: "If students have difficulty expressing their answers, then help them draw a diagram for each object." The "High-Leverage Practice" also includes prompts for students who are struggling to understand and to challenge further student thinking. The following are prompt examples: "How many intervals do you need to represent the time?" and "If both objects are moving at a constant speed, will the slower object ever catch up?"

In the "Decimals and Integers Series" Stretch Lesson 3B provides guidance on how to address student responses. The guidance states that "if students struggle with subtracting integers, use an open number line," and provides a script on how to model using the number line. The guidance also provides scaffolded questions for teachers to ask throughout the lesson. However, it does not provide prompts or guidance to give feedback on common misconceptions, only if students struggle with subtracting integers.

The "Practice" portion of the "Learn Zone" offers targeted hints and guidance if students encounter difficulties. The hints are based on possible student misconceptions. Educators can also experience the feedback by going to the "Teacher View" of the Student Application.