

IMRA Review Cycle 2024 Report



Publisher Name	Program Name
Kiddom	IM360 Texas Math Powered by Kiddom
Subject	Grade Level
Mathematics	1

Texas Essential Knowledge and Skills (TEKS) Coverage: 100%
English Language Proficiency Standards (ELPS) Coverage: 100%
Quality Review Overall Score: 220 / 227

IMRA Reviewers

Flags for Suitability Noncompliance 7

Indicator	Count of Flags
1. Prohibition on Common Core	7
2. Alignment with Public Education’s Constitutional Goal	0
3. Parental Rights and Responsibilities	0
4. Prohibition on Forced Political Activity	0
5. Protecting Children’s Innocence	0
6. Promoting Sexual Risk Avoidance	0
7. Compliance with the Children’s Internet Protection Act (CIPA)	0

Flags for Suitability Compliance 0

Indicator	Count of Flags
Alignment with Public Education’s Constitutional Goal, 2.1.1	0
Promoting Sexual Risk Avoidance, 6.2	0

Alleged Factual Errors 0

Public Feedback

Flags for Suitability Noncompliance 0

Rubric Indicator	Count of Flags
1. Prohibition on Common Core	0
2. Alignment with Public Education’s Constitutional Goal	0
3. Parental Rights and Responsibilities	0
4. Prohibition on Forced Political Activity	0
5. Protecting Children’s Innocence	0
6. Promoting Sexual Risk Avoidance	0
7. Compliance with the Children’s Internet Protection Act (CIPA)	0

Alleged Factual Errors 0

Public Comments 0

Quality Review Summary

Rubric Section	Quality Rating
1. Intentional Instructional Design	52 / 53
2. Progress Monitoring	25 / 28
3. Supports for All Learners	31 / 32
4. Depth and Coherence of Key Concepts	23 / 23
5. Balance of Conceptual and Procedural Understanding	64 / 66
6. Productive Struggle	25 / 25

Strengths

- 1.1 Course-Level Design: Materials include a scope and sequence outlining the TEKS, ELPS, concepts, and knowledge taught in the course, with suggested pacing guides for various instructional calendars, explanations for the rationale of unit order and concept connections, guidance for unit and lesson internalization, and resources to support administrators and instructional coaches in implementing the materials as designed.
- 1.3 Lesson-Level Design: Materials include comprehensive lesson plans with daily objectives, questions, tasks, materials, and assessments to meet content and language standards, along with overviews that outline suggested timing, list necessary materials, and provide guidance on using materials for extended practice.
- 2.2 Data Analysis and Progress Monitoring: Materials provide guidance on using the included tasks and activities to address student performance trends, and include tools for students to track their own progress and growth.
- 3.1 Differentiation and Scaffolds: Materials include teacher guidance for differentiated instruction, activities, and scaffolded lessons for students who have not yet reached proficiency, pre-teaching or embedded supports for unfamiliar vocabulary and references in text, and guidance for differentiated instruction, enrichment, and extension activities for students who have demonstrated proficiency in grade-level content and skills.
- 3.2 Instructional Methods: Materials include prompts and guidance to support teachers in modeling, explaining, and directly and explicitly communicating concepts to be learned. They provide teacher guidance and recommendations for effective lesson delivery using various instructional approaches and support multiple types of practice with guidance on recommended structures, such as whole group, small group, and individual settings, to ensure effective implementation.

- 4.1 Depth of Key Concepts: Materials provide practice opportunities and instructional assessments that require students to demonstrate depth of understanding aligned to the TEKS, with questions and tasks that progressively increase in rigor and complexity, leading to grade-level proficiency in mathematics standards.
- 4.2 Coherence of Key Concepts: Materials demonstrate coherence across courses and grade bands through a logically sequenced scope and sequence, explicitly connecting patterns, big ideas, and relationships between mathematical concepts, linking content and language across grade levels, and connecting students' prior knowledge to new mathematical knowledge and skills.
- 4.3 Spaced and Interleaved Practice: Materials provide spaced retrieval and interleaved practice opportunities with previously learned skills and concepts across lessons and units.
- 5.1 Development of Conceptual Understanding: Materials include questions and tasks that require students to interpret, analyze, and evaluate various models for mathematical concepts, create models to represent mathematical situations, and apply conceptual understanding to new problem situations and contexts.
- 5.2 Development of Fluency: Materials provide tasks designed to build student automaticity and fluency for grade-level tasks, offer opportunities to practice efficient and accurate mathematical procedures, evaluate procedures for efficiency and accuracy, and include embedded supports for teachers to guide students toward more efficient approaches.
- 5.4 Development of Academic Mathematical Language: Materials provide opportunities for students to develop academic mathematical language through visuals, manipulatives, and language strategies, with embedded teacher guidance for scaffolding vocabulary in context, supporting mathematical conversations, and using exemplar responses to refine students' math language skills.
- 5.5 Process Standards Connections: Materials integrate process standards appropriately, providing descriptions of how they are incorporated and connected throughout the course, within each unit, and in each lesson.
- 6.1 Student Self-Efficacy: Materials provide opportunities for students to think mathematically, persevere through problem-solving, and make sense of mathematics, while supporting them in understanding multiple ways to solve problems and requiring them to engage with math through doing, writing, and discussion.
- 6.2 Facilitating Productive Struggle: Materials support teachers in guiding students to share and reflect on their problem-solving approaches, including explanations and justifications, and offer prompts and guidance for providing

feedback based on student responses and anticipated misconceptions.

Challenges

- 1.2 Unit-Level Design: Materials do not include comprehensive unit overviews that provide the academic vocabulary to effectively teach the concepts in the unit.
- 2.1 Instructional Assessments: Diagnostic, formative, and summative assessments are not TEKS-aligned.
- 3.3 Support for Emergent Bilingual Students: Materials do not include

teacher guidance on providing linguistic accommodations for various levels of language proficiency [as defined by the ELPS.

- 5.3 Balance of Conceptual Understanding and Procedural Fluency: Materials do not explicitly state how the conceptual and procedural emphasis of the TEKS is addressed.

Summary

IM360 Texas Math powered by Kiddom is a Mathematics K–2 program that offers a problem-based curriculum that immerses students and teachers in the experience of "doing math." The grade 1 program includes eight comprehensive units with lessons within the digital platform that cover mathematical practice standards in a coherent progression and standard lesson design structure. The online materials contain embedded supports for students and teachers, including digital manipulatives and tools, language supports, and downloadable resources.

Campus and district instructional leaders should consider the following:

- The materials provide a comprehensive scope and sequence aligned with TEKS and ELPS, including pacing guides, detailed lesson plans, and differentiation strategies to meet diverse student needs. The resources promote coherence across grade levels, integrate process standards, and facilitate productive struggle, empowering students to engage deeply with mathematics. Teachers may benefit from additional support with implementation given that some areas of guidance are less explicit than others.
- The materials may need to be supplemented with additional resources and guidance for academic vocabulary and linguistic accommodations for emergent bilingual students.

Intentional Instructional Design

1.1	Course-Level Design	15/15
1.1a	Materials include a scope and sequence outlining the TEKS, ELPS, concepts, and knowledge taught in the course.	5/5
1.1b	Materials include suggested pacing (pacing guide/calendar) to support effective implementation for various instructional calendars (e.g., varying numbers of instructional days – 165, 180, 210).	2/2
1.1c	Materials include an explanation for the rationale of unit order as well as how concepts to be learned connect throughout the course.	2/2
1.1d	Materials include guidance, protocols, and/or templates for unit and lesson internalization.	2/2
1.1e	Materials include resources and guidance to support administrators and instructional coaches with implementing the materials as designed.	4/4

The materials include a scope and sequence outlining the TEKS, ELPS, concepts, and knowledge taught in the course. Materials include suggested pacing (pacing guide/calendar) to support effective implementation for various instructional calendars (e.g., varying numbers of instructional days – 165, 180, 210). Materials include an explanation for the rationale of the unit order and how concepts to be learned connect throughout the course. Materials include guidance, protocols, and/or templates to support lesson and unit internalization. Materials include resources and guidance to support administrators and instructional coaches with implementing the materials as designed.

Evidence includes, but is not limited to:

Materials include a scope-and-sequence outlining the TEKS, ELPS, concepts, and knowledge taught in the course.

- The materials include a Scope and Sequence located within the Course Guide Materials under the Pacing Guide and Dependency Diagram section of the online platform. The Scope and Sequence lists TEKS and ELPS by unit of instruction. The document lists the process standards and states, "Process Standards are integrated throughout all units." The Scope and Sequence also includes Lesson Titles and Lesson Targets outlining the concepts and knowledge taught in the course.
- Each unit within the scope and sequence is organized into sections and learning goals that describe the concepts and knowledge taught. For example, the Unit 3 overview begins by stating, "In this unit, students develop an understanding of 10 ones as a unit called "a ten" and use the structure of 10+n to add and subtract within 20."

Materials include suggested pacing (pacing guide/calendar) to support effective implementation for various instructional calendars (e.g., varying numbers of instructional days—165, 180, and 210).

- The materials include a detailed pacing guide located under the Course Guide section of the online platform. The pacing guide outlines suggested pacing for eight units over 34 instructional weeks, including the number of days per unit and the number of weeks per unit. The materials provide options within the Dependency Diagram of the pacing guide to adjust the timeline of units by including seven optional lessons spread across the 34 instructional weeks.
- The Texas Scope and Sequence for grade 1 includes supporting information to implement various instructional calendars. The calendar day suggestion is 180 days. To shorten the amount of instructional days, the materials state, "To reduce the number of instructional days, omit the 6 lessons noted as optional. This will reduce the number of instructional days to 174 days."

Materials include an explanation for the rationale of unit order as well as how concepts to be learned connect throughout the course.

- Units within the materials connect concepts throughout the units. For example, Unit 4 states, "Previously, students counted forward by one and ten within 100 in the Choral Counting routine...Here, as they count and group quantities, students generalize the structure of two-digit numbers in terms of the number of tens and ones," highlighting the connection between the concepts. The scope and sequence provides a narrative explaining the big ideas of the units and lists the titles of all eight units. Materials include an explanation of how the concepts to be learned connect throughout the course.
- Materials include dependency diagrams on the online platform under Course Guide, Pacing Guide, and Dependency Diagram that visually outline the flow of units taught via arrows in the diagram. The chart also indicates when a previously taught concept is revisited in future units. The coherent progression section, found in the online resource under the Course Overview, Teacher Guide, and Design Principles, describes the intentional organization of mathematical ideas to support a coherent progression of knowledge and skills across units and grade levels.

Materials include guidance, protocols, and/or templates for unit and lesson internalization.

- The materials include guidance, protocols, and/or templates to support unit and lesson internalization. One such example can be found in the PLC Structure section under Course Overview, Teacher Guide, and Key Structures, which provides guidance for unit internalization through the Professional Learning Community (PLC) process.
- Materials include a Section Level Planning Guide that supports teachers during lesson internalization. Each section-level planning guide includes five sections to support lesson internalization: (1) Explore, Play, and Discuss, (2) Deep Dive, (3) Synthesize and Apply, (4) Ongoing Practice, and (5) Anytime Resources.
- Materials include guidance for unit and lesson internalization in a section of the Teacher Guide, How to Use These Materials. Guidance for lesson internalization describes the function

of narratives within lessons and lesson activities. A description of the three phases of a classroom activity provides implementation guidance for teacher actions during each phase. A Center Overview provides information about center implementation at the lesson and unit levels. The Design Principles section provides guidance for unit internalization through explanations of unit, lesson, and activity structure. Units begin with an introductory lesson, then instructional lessons, and end with a culminating lesson.

- The Scope and Sequence provides a lesson to focus on during PLCs for each section of each unit. For example, at the end of Unit 1: Adding, Subtracting, and Working with Data, Section A: Add and Subtract Within 20, the materials suggest PLC: Lesson 2, Activity 2, Sums of 10. The Key Structures In This Course section, found within the Teacher Guide, contains a PLC Structure section with bullet points for teachers to follow before, during, and after a PLC. The materials state, "The suggested structure is categorized as pre-, during-, and post-lesson to offer teachers the opportunities to experiment with instruction during both planning and the classroom enactment by collectively discussing instructional decisions in the moment."

Materials include resources and guidance to support administrators and instructional coaches with implementing the materials as designed.

- The materials provide guidance for administrators and coaches implementing the materials. The information within the Course Overview, Design Principles section includes guidance for the development of teachers to support implementation. The guidance states, "Professional learning for the curriculum materials includes video of the routines in classrooms so teachers understand what the routines look like when they are enacted. Teachers also have opportunities in curriculum workshops and PLCs to practice and reflect on their own enactment of the routines."
- The Instructional Routines section of the Course Guide describes both warm-up and lesson routines with their function and identifies what the routine looks like during instruction. The instructional routines support student engagement in math, student contribution with their voice, and provide a predictable learning context for students. This provides additional information on the routines the curriculum includes for lesson delivery.
- The About These Materials section includes a Further Reading section with research articles about instructional components and content. The section preface states, "These are recommendations that can be used as resources for study to renew and fortify the knowledge of elementary mathematics teachers and other educators." These resources support other educators such as administrators and coaches.

Intentional Instructional Design

1.2	Unit-Level Design	3/4
1.2a	Materials include comprehensive unit overviews that provide the background content knowledge and academic vocabulary necessary to effectively teach the concepts in the unit.	1/2
1.2b	Materials contain supports for families in both Spanish and English for each unit with suggestions on supporting the progress of their student.	2/2

The materials include comprehensive unit overviews that provide the background content knowledge necessary to effectively teach the concepts in the unit. Materials do not include comprehensive unit overviews that provide the academic vocabulary to effectively teach the concepts in the unit. Materials contain supports for families in both Spanish and English for each unit with suggestions on supporting the progress of their student.

Evidence includes, but is not limited to:

Materials include comprehensive unit overviews that provide the background content knowledge and academic vocabulary necessary to effectively teach the concepts in the unit.

- Each of the eight units contains a detailed narrative that includes an overview and background content knowledge. For example, the Unit 1 narrative states "In this unit, students deepen their understanding of addition and subtraction within 10 and extend what they know about organizing objects into categories and representing quantities."
- Materials include a glossary of terms and refer to academic vocabulary in lessons but do not provide the academic vocabulary necessary to effectively teach concepts identified within the units. For example, under Glossary Terms is a slide deck with key vocabulary terms found in the units throughout the year. The slide deck includes "a complete grade-level list including word, definition, and picture for all vocabulary words introduced in the IM Math Curriculum."

Materials contain supports for families in both Spanish and English for each unit with suggestions on supporting the progress of their student.

- The materials include an English and Spanish version of the Family Supported Materials section that gives an overview with visuals of each section within the unit. For example, Unit 1, Section A states "In this section, students add and subtract within 10 while working in pairs at centers."
- The Course Overview, located in the Teacher Guide includes guidance in English for families wanting to support the progress of their student. The material links to videos that support families by reteaching the concepts.
- The materials conclude with a "Try it at Home!" segment that includes a description of the unit and questions to ask students.

Intentional Instructional Design

1.3	Lesson-Level Design	34/34
1.3a	Materials include comprehensive, structured, detailed lesson plans that include daily objectives, questions, tasks, materials, and instructional assessments required to meet the content and language standards of the lesson.	30/30
1.3b	Materials include a lesson overview outlining the suggested timing for each lesson component.	1/1
1.3c	Materials include a lesson overview listing the teacher and student materials necessary to effectively deliver the lesson.	2/2
1.3d	Materials include guidance on the effective use of lesson materials for extended practice (e.g., homework, extension, enrichment).	1/1

The materials include comprehensive, structured, detailed lesson plans that include daily objectives, questions, tasks, materials, and instructional assessments required to meet the content and language standards of the lesson. Materials include a lesson overview outlining the suggested timing for each lesson component. Materials include a lesson overview listing the materials necessary to effectively deliver the lesson. Materials include guidance on the effective use of lesson materials for extended practice (e.g., homework, extension, enrichment).

Evidence includes, but is not limited to:

Materials include comprehensive, structured, detailed lesson plans that include daily objectives, questions, tasks, materials, and instructional assessments required to meet the content and language standards of the lesson.

- Each unit contains multiple comprehensive, structured, and detailed lessons. Each lesson has a narrative, learning goals, and daily objectives aligned to meet the content and language standards of the lesson.
- The materials provide Unit Narratives and learning goals for the teacher to internalize the lesson. Teachers are provided with a pre-assessment to check for student readiness, a mid-unit assessment, and an end-of-unit assessment. All assessments include multiple ways for students to show their learning.
- The materials include a lesson narrative, learning goals, and student-facing learning targets. A list of required materials and a description of the required preparation for the upcoming lesson is included in the material. The lessons provide clear descriptions of how to launch tasks, advance students' thinking, and how to engage the class in an activity synthesis.
- Each lesson contains a Cool Down "(also known as an exit slip or exit ticket) to be given to students at the end of the lesson. This activity serves as a brief check-in to determine whether students understood the main concepts of that lesson. Teachers can use this as a formative assessment to plan further instruction." Each unit includes an end-of-unit assessment that serves as a summative assessment for the unit.

Materials include a lesson overview outlining the suggested timing for each lesson component.

- Within the downloadable teacher guide, each lesson has a lesson timeline that outlines the timing of each lesson component. The materials provide suggested timing for the lesson cycle's Warm-up (e.g., 10 minutes), Activity (e.g., 15 minutes), and Cool-down components. The lesson activity is further broken down to allocate the 15 minutes according to the smaller tasks within the lesson. For example, the materials specify 3 minutes for independent work time and three minutes for partner discussion.
- The materials include a lesson overview with subsections titled Lesson Narrative, Learning Goals, and Required Materials. The lesson narrative provides an overview of the lesson, which includes descriptions of student and teacher actions.

Materials include a lesson overview listing the teacher and student materials necessary to effectively deliver the lesson.

- The materials provide a section in the Course Overview titled "Required Materials" that lists the materials needed for each unit. This includes various items such as manipulatives, copies, and pre-cut materials. This section describes what teachers need to do before the lesson to prepare materials.
- The materials include a "Required Preparation" section within the lesson overview that includes the materials needed to teach the lesson. The materials include Materials to Gather and Materials to Copy sections within the Center component of the lesson cycle. Each includes the materials needed for the lesson.
- At the lesson level, the materials provide a list of materials needed to support the lesson's objectives in the Teacher Guide. The guide includes a "Materials Needed" section that lists the lessons, materials to gather, and materials to copy. The "Materials to Copy" section mentions the number of copies required for the students.

Materials include guidance on the effective use of lesson materials for extended practice (e.g., homework, extension, enrichment).

- Each unit component includes a Section Level Planning Guide that provides guidance on the use of materials for extended practice. For example, the Ongoing Practice section lists practice problems and centers.
- The Anytime Resources section includes suggestions for explorations, IM Talking Math, and resources for virtual mathematical tools.
- Each Unit contains one to two sets of practice problems. In the section How to Use These Materials, the materials state, "Teachers may decide to assign practice problems for homework or extra practice in class."
- The materials state, "Centers are intended to give students time to practice skills and concepts that are developed across the year." The materials also state, "In kindergarten and grade 1, center time is built into lessons so that students have a chance to spend more time on topics that require more time to develop understanding."

Progress Monitoring

2.1	Instructional Assessments	21/24
2.1a	Materials include a variety of instructional assessments at the unit and lesson level (including diagnostic, formative, and summative) that vary in types of tasks and questions.	12/12
2.1b	Materials include the definition and intended purpose for the types of instructional assessments included.	2/2
2.1c	Materials include teacher guidance to ensure consistent and accurate administration of instructional assessments.	2/2
2.1d	Diagnostic, formative, and summative assessments are aligned to the TEKS and objectives of the course, unit, or lesson.	3/6
2.1e	Instructional assessments include standards-aligned items at varying levels of complexity.	2/2

The materials include a variety of instructional assessments at the unit and lesson level (including diagnostic, formative, and summative) that vary in types of tasks and questions. Materials include the definition and intended purpose for the types of instructional assessments included. Materials include teacher guidance to ensure consistent and accurate administration of instructional assessments. Diagnostic, formative, and summative assessments are aligned with the objectives of the course, unit, or lesson. Diagnostic, formative, and summative assessments are not aligned TEKS. Instructional assessments include standards-aligned items at varying levels of complexity.

Evidence includes, but is not limited to:

Materials include a variety of instructional assessments at the unit and lesson level (including diagnostic, formative, and summative) that vary in types of tasks and questions.

- The Teacher Guide names pre-assessments and pre-unit practice problems in the Formative Assessment section. The materials include pre-unit practice problems in each section of the course. These problems can be used as a diagnostic to identify unfinished learning that can be addressed during that section of the unit. Diagnostic practice problems within each section of the curriculum allow for a pre-assessment to be conducted multiple times during a unit, thus allowing for a more focused and scaffolded approach. The materials contain several opportunities for formative assessments, such as practice problems and cool-downs, which can be used "as a formative assessment to plan further instruction."
- The Assessment guide found in Course Materials indicates there are a variety of assessment types found across the course, including structured pre-assessments, warm-ups, cool downs, summative and end of course assessments. This system of assessments is applied across each unit and lesson in grade 1. For example, the summative assessments include varying types of questions, including open-ended responses. The materials also state, "Problem types include multiple-choice, multiple-response, short answer, restricted constructed response, and extended response. Problems vary in difficulty and depth of knowledge."

Materials include the definition and intended purpose for the types of instructional assessments included.

- The Teacher Guide contains a section for assessments. Some subsections include Learning Goals and Targets, How to Assess Progress, Pre-unit Practice Problems, Cool-downs, and Summative Assessments. Each subsection gives the intended purpose of the materials and how to use them for assessment. The materials state summative assessments "are intended to gauge students' understanding of the key concepts of the unit while also preparing students for new-generation standardized exams."
- When describing the formative and summative assessments, the materials state, "Some things are purely formative, but the tools that can be used for summative assessment can also be used formatively," giving the teachers the flexibility to make adjustments when appropriate.
- Within the assessment section, the materials define the various types of assessments.

Materials include teacher guidance to ensure consistent and accurate administration of instructional assessments.

- The Assessment Guide found in the Course Materials provides guidance for teachers on how and why to use the variety of instructional assessments in the course. For example, under "Formative Assessment Opportunities, it states, "Each instructional task is accompanied by commentary about expected student responses and opportunities to advance student thinking so that teachers can adjust their instruction depending on what students are doing in response to the task. Often there are suggested questions to help teachers better understand students' thinking."
- The assessment tab has two subsections labeled Formative Assessment Opportunity and Summative Assessment Opportunity. In the Summative Assessment Opportunity section, the materials provide guidance on administering the assessment by stating, "Each unit (starting in Kindergarten, Unit 2) includes an end-of-unit written assessment that is intended for students to complete individually to assess what they have learned at the conclusion of the unit. In K–2, the assessment may be read aloud to students, as needed." The materials also state, "Teachers may also decide to make changes to the provided assessments to better suit their needs."
- Additionally, at the item level, teachers are provided with "Notes for Evaluating Responses" so that they know how and what students should be representing in their responses to demonstrate proficiency with the learning objective.

Diagnostic, formative, and summative assessments are aligned to the TEKS and objectives of the course, unit, or lesson.

- When referring to summative assessments, the materials state that "each unit (starting in Kindergarten, Unit 2) includes an end-of-unit written assessment intended for students to complete individually to assess what they have learned at the conclusion of the unit."

- As described in the Assessment section, the cool-downs allow the teacher to "assess whether students understood the work of that day's lesson." Practice problems within each lesson are another opportunity for the students to be formatively assessed.
- As indicated in the Lessons by Standard section within the Course Guide, there is evidence of alignment between formative and summative assessments and objectives of the course, unit, or lesson. For example, Unit 4, Lesson 2, Cool-down includes a question that requires counting by ten to determine the number of cubes. This aligns with the learning goal or lesson objective: "Interpret different base-ten representations of multiples of 10."
- There is no evidence that diagnostic, formative, and summative assessments are aligned to the TEKS.

Instructional assessments include standards-aligned items at varying levels of complexity.

- Instructional assessments found within the materials included questions and tasks at the knowledge, application, and synthesis levels of depth and complexity. For example, questions and tasks state that students will identify, understand, analyze, and respond to various prompts and tasks.

Progress Monitoring

2.2	Data Analysis and Progress Monitoring	4/4
2.2a	Instructional assessments and scoring information provide guidance for interpreting and responding to student performance.	2/2
2.2b	Materials provide guidance for the use of included tasks and activities to respond to student trends in performance on assessments.	1/1
2.2c	Materials include tools for students to track their own progress and growth.	1/1

The instructional assessments and scoring information provide guidance for interpreting and responding to student performance. Materials provide guidance for the use of included tasks and activities to respond to student trends in performance on assessments. Materials include tools for students to track their own progress and growth.

Evidence includes, but is not limited to:

Instructional assessments and scoring information provide guidance for interpreting and responding to student performance.

- Within the Formative Assessment Opportunities section, the materials include information for teachers to interpret and respond to student responses as specified. The materials state, "Each instructional task is accompanied by commentary about expected student responses and opportunities to advance student thinking so that teachers can adjust their instruction depending on what students are doing in response to the task. Often, there are suggested questions to help teachers better understand students' thinking."
- The materials provide suggested points for assessment questions as indicated in the cool-down within the given lesson of a particular unit.
- The materials include a Notes for Evaluating Responses section that provides guidance for interpreting student responses.
- Each assessment within the curriculum includes an answer key to interpret student performance. For example, Unit 3 contains an End-of-Unit Assessment that provides the value of each question and expected student responses.

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

- As stated in the Assessment section of the *Teacher Resource Guide*, "Multiple choice and multiple response problems often include a reason for each potential error a student might make." In the *Teacher Resource Guide*, next to each question on the End-of-Unit Assessment, the materials list the standard being assessed, the solution to the problem, and a "Narrative" for teacher reflection. The Narrative includes teacher guidance on which skill is being

assessed and possible reasons why students may have selected each incorrect answer choice. Below the End-of-Unit Assessment Guidance chart, several specific Center activities are given to respond to trends in performance assessments.

- In the Assessment Guidance Section provided in the course overview, materials provide guidance for how to respond to trends that demonstrate a lack of prerequisite skills after completing the diagnostic pre-unit assessments. The example provided states, "What if a large number of students can't complete the same pre-unit assessment problem? Address prerequisite skills while continuing to work through the on-grade tasks and concepts of each unit instead of abandoning the current work in favor of material that addresses only prerequisite skills. Look for opportunities within the upcoming unit to address the target skill or concept in context or with a center."
- The sections titled "A Typical IM Lesson" and "How to Use These Materials" provide guidance on how to use tasks and activities. The materials state, "Each instructional task is accompanied by commentary about expected student responses and opportunities to advance student thinking so that teachers can adjust their instruction depending on what students are doing in response to the task with suggested questions to help teachers better understand students' thinking."

Materials include tools for students to track their own progress and growth.

- Materials provide guidance using online tools. The materials provide a comprehensive data dashboard for students. Materials provide students a personalized dashboard that tracks their progress in each class based on specific standards and assignments. The tool offers individualized reports showing students' strengths and areas needing improvement. Hovering over a standard provides more information, and clicking the standard reveals the number of assignments. The tool allows students to navigate to relevant assignments, view any associated attachments, check their grades, and read teacher comments or feedback.
- The online support article describes how students will receive notifications regarding assignments, grade notifications, and teacher comments. In the article "Student Help: How Do I Check My Grades and Feedback?" the materials state that students will receive an e-mail notification and an in-app notification when the teacher assigns a grade to a completed assignment. The materials state that students can review graded assignments and teacher feedback in their online accounts. Feedback may include general comments on the overall assignment performance or connections to specific questions. Materials provide question-specific feedback to enable students to navigate to those questions to better understand teacher feedback.

Supports for All Learners

3.1	Differentiation and Scaffolds	8/8
3.1a	Materials include teacher guidance for differentiated instruction, activities, and/or paired (scaffolded) lessons for students who have not yet reached proficiency on grade-level content and skills.	3/3
3.1b	Materials include pre-teaching or embedded supports for unfamiliar vocabulary and references in text (e.g., figurative language, idioms, academic language). (T/S)	2/2
3.1c	Materials include teacher guidance for differentiated instruction, enrichment, and extension activities for students who have demonstrated proficiency in grade-level content and skills.	3/3

The materials include teacher guidance for differentiated instruction, activities, and/or paired (scaffolded) lessons for students who have not yet reached proficiency on grade-level content and skills. Materials include embedded supports for unfamiliar vocabulary and references in text (e.g., figurative language, idioms, academic language). Materials include teacher guidance for differentiated instruction, enrichment, and extension activities for students who have demonstrated proficiency in grade-level content and skills.

Evidence includes, but is not limited to:

Materials include teacher guidance for differentiated instruction, activities, and/or paired (scaffolded) lessons for students who have not yet reached proficiency on grade-level content and skills.

- The materials include a Design Principles section that states the "materials offer guidance to support students in meeting the learning goals. This guidance falls into one of two categories, next-day support or prior-unit support, based on the anticipated student response." For example, within the Response to Student Thinking section, the materials provide a summary of ways teachers can adjust their lessons. The materials state, "These suggestions range from providing students with more concrete representations in the next day's lessons to recommending a section from a prior unit with activities that directly connect to the concepts in the lesson."
- In the A Typical IM Lesson section, the materials state, "Next day supports, such as providing students access to specific manipulatives or having students discuss their reasoning with a partner, are recommended for cool-down responses that should be addressed while continuing on to the next lesson."
- In the Response to Student Thinking section, the materials mention Cool-Downs to "formatively assess student thinking in relation to the learning goal of that day's lesson. The materials offer guidance to support students in meeting the learning goals." This is evident in Unit 1, Lesson 2, where the Cool-Down, Next Day Support states, "During the synthesis of the next day's warm-up, have students write an expression to match each set of dot cubes."
- Units 1, 2, and 3 include an Adaptation Guide that states the materials "reinforce students' understanding of addition and subtraction and their fluency within 5, as well as making sense

of Put-Together story problems." An example of a lesson adjustment is, "Before Section A of the current unit, add in: Kindergarten Unit 8 Section C Lesson."

Materials include pre-teaching or embedded supports for unfamiliar vocabulary and references in text (e.g., figurative language, idioms, academic language). (T/S)

- The Course Overview contains a Glossary for the course that contains vocabulary words with related images. Additionally, each lesson contains relevant vocabulary words from the Grade 1 Glossary Terms Deck.
- For example, the materials state in the Lesson 1 Warm-up, "During the synthesis, ask students to explain the meaning of any terminology they use, such as square, cube, triangle, circle, flat, and solid."

Materials include teacher guidance for differentiated instruction, enrichment, and extension activities for students who have demonstrated proficiency in grade-level content and skills.

- The How to Use These Materials section includes information about practice problems and states, "Each practice problem set includes exploration questions that provide an opportunity for differentiation for students ready for more of a challenge."
- The Section Level Planning Guide provides an overview of student learning objectives, multiple suggestions for activities, and a chart that outlines the levels of learning. The levels are identified as Explore, Play, and Discuss, Deep Dive, Synthesize and Apply, and Ongoing Practice. There are lessons and activities aligned to each level.
- The materials provide a Centers section after each lesson. For example, Unit 7, Lesson 3 Activity 3 states, "The purpose of this activity is for students to choose from activities that offer practice adding and subtracting within 10 or 20. Students choose from any stage of previously introduced centers."

Supports for All Learners

3.2	Instructional Methods	13/13
3.2a	Materials include prompts and guidance to support the teacher in modeling, explaining, and communicating the concept(s) to be learned explicitly (directly).	6/6
3.2b	Materials include teacher guidance and recommendations for effective lesson delivery and facilitation using a variety of instructional approaches.	4/4
3.2c	Materials support multiple types of practice (e.g., guided, independent, collaborative) and include guidance for teachers and recommended structures (e.g., whole group, small group, individual) to support effective implementation.	3/3

The materials include prompts and guidance to support the teacher in modeling and communicating the concept(s) to be learned explicitly. Materials include teacher guidance and recommendations for effective lesson delivery and facilitation using a variety of instructional approaches. Materials support multiple types of practice (e.g., guided, independent, collaborative) and include guidance for teachers and recommended structures (e.g., whole group, small group, individual) to support effective implementation.

Evidence includes, but is not limited to:

Materials include prompts and guidance to support the teacher in modeling, explaining, and communicating the concept(s) to be learned explicitly (directly).

- Each lesson includes a warm-up and activities for students that prompt and guide the teacher in modeling the concepts to be learned explicitly. For example, the Warm-up section states, "As students count, point to the number posted so that students can follow along."
- The Activity Narrative and Activity Synthesis sections provide explicit prompts for the students and guidance for the teachers when modeling the concepts. For example, in Lesson 1, Activity 1, the materials state, "Students keep their books closed for the launch of the activity, as the teacher displays and reads the problem."
- Each unit includes a downloadable Teacher Guide that serves as a detailed overview of the entire unit. Within the guide, there is evidence of prompts and guidance to support the teacher in communicating the concepts to be learned explicitly. For example, Lesson 6, Warm-up and Activity 1 state, "Ask students how $4 + 5$ and $5 + 4$ can represent the problem. If possible, create an audio recording so students can hear the problem being read to them."
- The materials provide prompts or guidance to support the teacher in explaining the concepts to be learned explicitly in the About These Materials section.

Materials include teacher guidance and recommendations for effective lesson delivery and facilitation using a variety of instructional approaches.

- In the A Typical IM Lesson section, the materials provide a detailed description of lesson components and how to facilitate them. For example, the Lesson Synthesis section states,

"Teachers can use this time in any number of ways, including posing questions verbally and calling on volunteers to respond, asking students to respond to prompts in a written journal, asking students to add on to a graphic organizer or concept map, or adding a new component to a persistent display like a word wall." This suggestion gives the teacher guidance and recommendations for effective lesson delivery and facilitation using a variety of instructional approaches.

- The materials include three phases of each lesson in the How to Use These Materials section of the Teacher Guide. Each of the phases, Launch, Student Work Time, and Activity Synthesis, have different approaches to instruction and provide students with multiple opportunities to learn the concept.
- Each lesson contains guidance and recommendations for effective lesson delivery using a variety of instructional approaches. For example, in Unit 3, Lesson 1, the Warm-up includes a notice and wonder activity where students view a table and share their thoughts about sums up to 10 with a partner. Later in the lesson, students play a game with cards to find the sum of two numbers. They share their thinking with a partner throughout the lesson.

Materials support multiple types of practice (e.g., guided, independent, collaborative) and include guidance for teachers and recommended structures (e.g., whole group, small group, individual) to support effective implementation.

- The materials provide opportunities for the students to practice the concepts learned independently, collaboratively, or during guided practice. The Teacher Guide Design Principles section states that "each activity starts with a launch that gives all students access to the task. This is followed by independent work time that allows them to grapple with problems individually before working in small groups."
- The materials provide suggestions such as "The launch for an activity frequently includes suggestions for grouping students. This gives students the opportunity to work individually, with a partner, or in small groups."
- Within the Teacher Guide, the Design Principles section provides the teachers with detailed guidance on implementing the material effectively. For example, "In all these roles, teachers must listen to and make use of student thinking, be mindful about who participates, and continuously be aware of how students are positioned in terms of status inside and outside the classroom." The materials go on to state, "Teachers also guide students in understanding the problem they are being asked to solve, ask questions to advance students' thinking in productive ways, provide structure for students to share their work, orchestrate discussions so students have the opportunity to understand and take a position on the ideas of others, and synthesize the learning with the whole class at the end of activities and lessons."

Supports for All Learners

3.3	Supports for Emergent Bilingual Students	10/11
3.3a	Materials include teacher guidance on providing linguistic accommodations for various 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.	1/2
3.3b	Materials include implementation guidance to support teachers in effectively using the materials in state-approved bilingual/ESL programs.	1/1
3.3c	Materials include embedded guidance for teachers to support emergent bilingual students in developing academic vocabulary, increasing comprehension, building background knowledge, and making cross-linguistic connections through oral and written discourse.	8/8
3.3d	If designed for dual language immersion (DLI) programs, materials include resources that outline opportunities to address metalinguistic transfer from English to the partner language.	Not scored

The materials include teacher guidance on providing linguistic accommodations for one level of language proficiency [as defined by the English Language Proficiency Standards (ELPS)]. Materials do not include teacher guidance on providing linguistic accommodations for various levels of language proficiency [as defined by the English Language Proficiency Standards (ELPS)]. Materials include implementation guidance to support teachers in effectively using the materials in state-approved bilingual/ESL programs. Materials include embedded guidance for teachers to support emergent bilingual students in developing academic vocabulary, increasing comprehension, building background knowledge, and making cross-linguistic connections through oral and written discourse.

Evidence includes, but is not limited to:

Materials include teacher guidance on providing linguistic accommodations for various 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.

- Kiddom’s Approach to English Language Proficiency in Texas Math document aligns the MLRs to the ELPS but does not provide linguistic accommodations for the various levels of language proficiency as defined by the ELPS. The document states that "Teachers should use their professional judgment about which routines to use and when, based on their knowledge of the individual needs of students in their classroom."
- The Supporting Diverse Learners section states, "To support students who are learning English in their development of language, this curriculum includes instruction devoted to fostering language development alongside mathematics learning, fostering language-rich environments where there is space for all students to participate."
- The Course Guide explains that MLRs are "instructional routines that provide structured but adaptable formats for amplifying, assessing, and developing students' language." While the

Course Guide provides general guidance about the various MLRs, it does not provide specific guidance for leveling supports based on student needs. For example, the Course Guide states that teachers can "Adapt these flexible routines to support students at all stages of language development in improving their use of English and disciplinary language." Still, it does not explicitly provide the teacher guidance on how to make these adaptations. It also states, "Use the MLRs, as needed, and phase them out as students develop understanding and fluency with the English language," but does not guide how to evaluate if a student is ready to have decreased language support.

- The materials do not explicitly identify which linguistic accommodations best support various levels of language proficiency and contain no evidence of alignment with the ELPS.

Materials include implementation guidance to support teachers in effectively using the materials in state-approved bilingual/ESL programs.

- The materials provide Mathematical Language Routines (MLRs) that are "grounded in four design principles that promote mathematical language use and development." The materials define MLRs as "instructional routines that provide structured but adaptable formats for amplifying, assessing, and developing students' language."
- The materials include a section titled Supporting Diverse Learners that supports teachers in effectively using the materials. The materials state, "Embedded MLRs are described in the teacher notes for the lessons in which they appear." They continue to state "MLRs are written into each lesson, either as an embedded structure of a lesson activity in which all students engage, or as a suggested optional support specifically for emergent bilingual students."

Materials include embedded guidance for teachers 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 Key Structures In This Course section provides opportunities for students to develop background knowledge through embedded guidance for teachers to support emergent bilingual students through journal writing. The materials include writing prompts such as, "When students are asked to write about ways in which the math they learned in class that day was connected to something they knew from an earlier unit or grade, they are explicitly connecting their prior and new understandings."
- In Unit 1, Lesson 9, Activity 3, guidance is provided for supporting emergent bilingual students in developing comprehension and vocabulary through oral discourse. The materials state, "Collect and Display: Circulate, listen for, and collect the language students use as they talk about the data. On a visible display, record words and phrases such as: *more*, *less*, *same*, *different*, and *popular*. Invite students to borrow language from the display as needed, and update it throughout the lesson."
- In Unit 5, Lesson 14, Activity 1 of the Access for English Learners section, the materials include embedded guidance for teachers to support emergent bilingual students in developing academic vocabulary, increasing comprehension, and making cross-linguistic connections

through oral and written discourse. For example, the Access for English Learners states: "MLR8 Discussion Supports: Students who are working toward verbal output may benefit from access to mini-whiteboards, sticky notes, or spare paper to write down and show their responses to their partner. Advances: Writing, Representing."

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

- The materials are not designed for dual language immersion (DLI) programs.
- The Supporting Diverse Learners section includes resources that outline opportunities to address supports for emergent bilingual students. "To support students who are learning English in their development of language, this curriculum includes instruction devoted to fostering language development alongside mathematics learning, fostering language-rich environments where there is space for all students to participate." However, there is no specific reference to dual language immersion resources.
- The How to Use These Materials section states, "MLRs are written into each lesson, either as an embedded structure of a lesson activity in which all students engage, or as a suggested optional support specifically for English learners."

Depth and Coherence of Key Concepts

4.1	Depth of Key Concepts	3/3
4.1a	Practice opportunities over the course of a lesson and/or unit (including instructional assessments) require students to demonstrate depth of understanding aligned to the TEKS.	1/1
4.1b	Questions and tasks progressively increase in rigor and complexity, leading to grade-level proficiency in the mathematics standards.	2/2

The materials include practice opportunities over the course of a lesson and/or unit (including instructional assessments) that require students to demonstrate depth of understanding aligned to the TEKS. Materials include questions and tasks that progressively increase in rigor and complexity, leading to grade-level proficiency in the mathematics standards.

Evidence includes, but is not limited to:

Practice opportunities over the course of a lesson and/or unit (including instructional assessments) require students to demonstrate depth of understanding aligned to the TEKS.

- Each unit contains a Section Level Planning Guide. This guide explains the practice opportunities for demonstrating depth of understanding throughout the unit’s progression. The TEKS guide supports that these opportunities for practice are aligned to the Texas Essential Knowledge and Skills (TEKS).
- The materials provide practice opportunities over the course of a lesson and/or unit, including instructional assessments. For example, in Unit 6, Lesson 1, Activity 1, students are provided practice opportunities that align with the learning goals. The learning goal states, "Compare the length of objects by lining up the endpoints." In the activity, students practice measuring and comparing the lengths of various objects.
- The grade 1, Unit 5 End of Unit Assessment provides students with opportunities to practice the concepts from throughout the unit.

Questions and tasks progressively increase in rigor and complexity, leading to grade-level proficiency in the mathematics standards.

- Each unit has a unit narrative that includes evidence of tasks progressively increasing in rigor and complexity, leading to grade-level proficiency in the mathematics standards. For example, the Unit 7 Unit Narrative states, "In this unit...they expand their knowledge of two- and three-dimensional shapes, partition shapes into halves and fourths, and tell time to the hour and half of an hour... students extend those experiences as they work with shape cards, pattern blocks, geoblocks, and solid shapes...Next, students transition to thinking about how to partition shapes into halves and fourths or quarters."
- The Unit 3 Section Planning Guide outlines the progression of learning throughout the unit, including an increase in rigor and tasks. Initially, students solve equations to find the sum or difference. As the unit progresses, students encounter ‘Add To’ and ‘Change Unknown’

problems for the first time. When writing equations to match these problems, students discover that the answer doesn't always appear immediately after the equal sign.

- The Coherent Progression section explains how the questions and tasks within the materials progressively increase in rigor and complexity, leading to grade-level proficiency in the mathematics standards. The materials state that all "narratives describe decisions about the organization of mathematical ideas, connections to prior and upcoming grade-level work, and the purpose of each lesson and activity." The materials further describe how content is designed to support all learners as they move through the mathematics progression based on standards and research-based practices.

Depth and Coherence of Key Concepts

4.2	Coherence of Key Concepts	12/12
4.2a	Materials demonstrate coherence across courses/grade bands through a logically sequenced and connected scope and sequence.	2/2
4.2b	Materials demonstrate coherence across units by explicitly connecting patterns, big ideas, and relationships between mathematical concepts.	3/3
4.2c	Materials demonstrate coherence across units by connecting the content and language learned in previous courses/grade levels and what will be learned in future courses/grade levels to the content to be learned in the current course/grade level.	3/3
4.2d	Materials demonstrate coherence at the lesson level by connecting students' prior knowledge of concepts and procedures from the current and prior grade level(s) to new mathematical knowledge and skills.	4/4

The materials demonstrate coherence across courses/grade bands through a logically sequenced and connected scope and sequence. Materials demonstrate coherence across units by explicitly connecting patterns, big ideas, and relationships between mathematical concepts. Materials demonstrate coherence across units by connecting the content and language learned in previous courses/grade levels and what will be learned in future courses/grade levels to the content to be learned in the current course/grade level. Materials demonstrate coherence at the lesson level by connecting students' prior knowledge of concepts and procedures from the current and prior grade level(s) to new mathematical knowledge and skills.

Evidence includes, but is not limited to:

Materials demonstrate coherence across courses/grade bands through a logically sequenced and connected scope and sequence.

- The materials contain a scope and sequence that lists the eight units, along with a narrative describing the prior knowledge students have acquired in previous units. The Unit 2 narrative explains the student's learning goals and how they build upon the knowledge and concepts taught in kindergarten by using "their knowledge about solving story problems to solve new types of addition and subtraction problems."
- The materials contain a Dependency Diagram outlining instructional concepts for each grade. The diagram illustrates how the concepts within the scope and sequence connect within and across grade levels, visually representing the connections between concepts throughout the grade levels.
- The About These Materials section contains a chart that outlines the "progression of a topic across grade levels, note key connections among standards, and discuss challenging mathematical concepts."

Materials demonstrate coherence across units by explicitly connecting patterns, big ideas, and relationships between mathematical concepts.

- The scope and sequence includes a narrative describing the big ideas for grade 1. The big ideas in the materials for grade 1 instruction are understanding and strategies for addition and subtraction within 20, whole-number relationships and place value, linear measurement, and measuring lengths, and learning attributes of, composing, and decomposing geometric shapes. The narrative includes a list to demonstrate the breakdown of these big ideas in each unit.
- The scope and sequence list the eight units and includes a narrative for units 1-7. As conveyed through the titles and narratives of each unit, coherence is evident across the grade level. For example, Unit 3 focuses on "Adding and Subtracting within 20," and later in the sequence, Unit 5 focuses on "Adding within 100." In the Unit 6 narrative, the materials describe how students continue the work of prior units where they "added one-digit numbers and teen numbers without composing a ten and added multiples of 10 to two-digit numbers."
- The Unit 5 narrative found in the scope and sequence explains that students build upon their previous use of place value to find sums as they "add within 100, using place value and properties of operations in their reasoning."

Materials demonstrate coherence across units by connecting the content and language learned in previous courses/grade levels and what will be learned in future courses/grade levels to the content to be learned in the current course/grade level.

- The materials include a Dependency Diagram to demonstrate how units connect across grade levels. For example, the diagram provides a pathway for teachers to follow when planning future units for students who have mastered current content.
- The Unit 8 narrative connects the concepts that have been learned throughout the year to what will be learned in the following grade level. For example, students will connect their understanding of place value and addition and subtraction within 100 to what has been learned previously as the foundation for grade 2.
- In Unit 3, the materials describe how previous grade-level content has prepared students for current learning by using various tools (10-frames, connecting cubes, two-color counters) to represent the quantities in the problems as they compose and decompose numbers 11–19.

Materials demonstrate coherence at the lesson level by connecting students' prior knowledge of concepts and procedures from the current and prior grade level(s) to new mathematical knowledge and skills.

- Unit 7, Lesson 1 describes how students leverage their prior knowledge of concepts and procedures from the previous grade level. The materials describe that students were introduced to two- and three-dimensional shapes in kindergarten as a precursor to this lesson, which requires students to use the language they already know to talk about three-dimensional shapes.

- The Lesson Narrative section in Unit 8, Lesson 3, describes how the concepts and procedures of the current level apply to new mathematical ideas. For example, "This lesson helps students practice adding and subtracting with 20 and apply their fluency within 10 in preparation for their work with addition and subtraction in grade 2."
- Unit 3, Lesson 5 demonstrates coherence by connecting students' prior knowledge of procedures to new mathematical knowledge and skills. During this lesson, students apply procedures learned in a previous unit, specifically the relationship between addition and subtraction, to find the differences within 10.

Depth and Coherence of Key Concepts

4.3	Spaced and Interleaved Practice	8/8
4.3a	Materials provide spaced retrieval opportunities with previously learned skills and concepts across lessons and units.	4/4
4.3b	Materials provide interleaved practice opportunities with previously learned skills and concepts across lessons and units.	4/4

The materials provide spaced retrieval opportunities with previously learned skills and concepts across lessons and units. Materials provide interleaved practice opportunities with previously learned skills and concepts across lessons and units.

Evidence includes, but is not limited to:

Materials provide spaced retrieval opportunities with previously learned skills and concepts across lessons and units.

- The materials provide information about the opportunities for previously learned skills and concepts to be integrated across lessons and units. For example, in Unit 1 Lesson 4, the Lesson Narrative states "The purpose of this lesson is for students to subtract 1 or 2 within 10" which builds upon the previous lesson where students added 1 or 2.
- In the Unit 2 narrative, the materials state "In this unit, students learn to solve new types of addition and subtraction story problems and relate the quantities in the stories to equations." which will then be spiraled into other units through number talks, new methods, and new centers.
- In Unit 4, students count and group quantities and identify two-digit numbers by number of tens and ones using their previous knowledge of counting to 100 by tens and ones.

Materials provide interleaved practice opportunities with previously learned skills and concepts across lessons and units.

- The materials provide practice opportunities for previously learned skills and concepts. For example, the Course Guide describes that students have opportunities to practice "adding, subtracting, and working with data" in Unit 1 and then transition to "adding and subtracting word problems" in Unit 2.
- The Throughout The Unit section of Unit 8 describes the use of center activities to provide interleaved practice opportunities by stating students "May also revisit previously introduced centers as suggested in each section, or other familiar centers based on their need and interest."
- In Unit 7 Section B, the materials state, "Students learn that when decomposing a shape into two equal pieces, each piece is 'a half of' the shape, and the pieces are called halves." The concept of partitioning a circle in half progresses in later lessons within the same unit when

students apply that concept to time and connect it to the movements of the minute and hour hands moving halfway around the clock.

Balance of Conceptual and Procedural Understanding

5.1	Development of Conceptual Understanding	18/18
5.1a	Questions and tasks require students to interpret, analyze, and evaluate a variety of models and representations for mathematical concepts and situations.	12/12
5.1b	Questions and tasks require students to create a variety of models to represent mathematical situations.	2/2
5.1c	Questions and tasks provide opportunities for students to apply conceptual understanding to new problem situations and contexts.	4/4

The materials include questions and tasks that require students to interpret, analyze, and evaluate a variety of models and representations for mathematical concepts and situations. Questions and tasks require students to create a variety of models to represent mathematical situations. Questions and tasks provide opportunities for students to apply conceptual understanding to new problem situations and contexts.

Evidence includes, but is not limited to:

Questions and tasks require students to interpret, analyze, and evaluate a variety of models and representations for mathematical concepts and situations.

- Students have multiple opportunities within Unit 2 to interpret, analyze, and evaluate a variety of models and representations. For example, the materials state, "As they solve problems, students analyze and write equations and consider the meaning of the equal sign." Additionally, the Section A narrative describes students revisiting familiar problem types (Add To and Take From) and solving them in different ways, including physically acting out the problems with objects or drawings.
- The Section B narrative for Unit 1 describes how students record, organize, and represent data using objects, symbols, tally marks, or numbers. Afterward, students analyze and interpret their peers' representations.
- In Unit 2, Lesson 9 Activity 2, directions prompt students to conduct gallery walks with partners. Students observe three different posters and discuss the similarities and differences between the problems and representations. The guidance states, "Discuss how each equation matches a story problem and where in the equation you see the answer to the question."
- The Instructional Routines section of the Course Guide includes a variety of routines that support interpreting, analyzing, and evaluating. For example, the description in the What Do You Know About ___? section "elicits students' ideas of numbers, place value, operations, and groupings through visuals of quantity, expressions, and other representations."

Questions and tasks require students to create a variety of models to represent mathematical situations.

- In Unit 3, Lesson 2 Activity 1, students have opportunities to create a variety of models to represent mathematical situations. For example, the materials prompt students to represent and solve an equation using 10-frames and counters. Additionally, in Unit 5, Lesson 2 Activity 2, students use a base ten and a pictorial model to represent equations.
- In Unit 2, Lesson 9 Activity 1, the activity narrative describes how students solve problems using the method of their choice and proceed to write equations to match the problem. When writing the equation, the materials prompt students to place a box around the number that represents the answer to the question.
- Students are given a word problem as one of the Unit 2, Section B practice problems that asks them to make a drawing that matches the story, "There are 3 first graders and 6 second graders on the soccer team. How many kids are on the soccer team?"

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

- The materials include questions and tasks for students to apply conceptual understanding. In the Unit 5 Lesson 1 lesson synthesis, the materials include prompts to ask students to apply their understanding of adding using place value. For example, guidance prompts teachers to present the following scenario to students: "Mai and Andre added $4 + 45$. Mai says the sum is 85. Andre says the sum is 49. Who do you agree with? Why do you agree with them?"
- In Unit 2, Lesson 9 lesson synthesis, materials provide an opportunity for students to apply conceptual understanding to new problem situations and contexts by comparing story problems and analyzing equations. Students are then given the following prompt: "Could this equation represent the problem? Why or why not?"
- In the Unit 3 Lesson 3 lesson synthesis, the materials provide an opportunity for students to apply conceptual understanding to new problem situations and contexts during a discussion related to equations that have expressions on both sides of the equal sign. For example, the teacher asks, "What would you tell someone who said this equation was true because $6+3=96+3=9$?"

Balance of Conceptual and Procedural Understanding

5.2	Development of Fluency	12/12
5.2a	Materials provide tasks that are designed to build student automaticity and fluency necessary to complete grade-level tasks.	2/2
5.2b	Materials provide opportunities for students to practice the application of efficient, flexible, and accurate mathematical procedures within the lesson and/or throughout a unit.	3/3
5.2c	Materials provide opportunities for students to evaluate procedures, processes, and solutions for efficiency, flexibility, and accuracy within the lesson and throughout a unit.	6/6
5.2d	Materials contain embedded supports for teachers to guide students toward increasingly efficient approaches.	1/1

The materials provide tasks that are designed to build student automaticity and fluency necessary to complete grade-level tasks. Materials provide opportunities for students to practice the application of efficient, flexible, and accurate mathematical procedures within the lesson and/or throughout a unit. Materials provide opportunities for students to evaluate procedures, processes, and solutions for efficiency, flexibility, and accuracy within the lesson and throughout a unit. Materials contain embedded supports for teachers to guide students toward increasingly efficient approaches.

Evidence includes, but is not limited to:

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

- In the A Typical IM Lesson section, the materials provide teachers with instructional routines intended to spiral tasks designed to build fluency with grade-level skills. For example, each lesson begins with a warm-up activity that "helps students get ready for the day's lesson, or gives students an opportunity to strengthen their number sense or procedural fluency." In Unit 2, Lesson 2 Warm-Up, students practice adding one or more to an addend to increase the sum by one as they continue to build fluency with addition within 10.
- The materials include tasks that provide opportunities to build the automaticity and fluency necessary to complete grade-level tasks. For example, the Unit 8 Unit Narrative states, "In this unit, students revisit major work and fluency goals of the grade, applying their learning from the year...working toward the goal of adding and subtracting fluently within 10." Additionally, lessons and activities throughout the unit target practicing automaticity and fluency, such as Lesson 1, Activity 1, where students write sums on index cards which can then be used as flash cards as students practice fluency throughout the unit.
- The Center Overview section describes how centers are incorporated throughout the unit to build towards the content in a lesson or section, thus developing fluency across the grade level. For example, Grade 1 center structures allow students "time to choose between previously introduced centers that reinforce content from the unit or build grade-level fluencies."

Materials provide opportunities for students to practice the application of efficient, flexible, and accurate mathematical procedures within the lesson and/or throughout a unit.

- In Unit 1, Lesson 5 includes centers for the students to work on previously taught skills using frequently utilized tools to reinforce their learning throughout the year. The materials state, "Students have the opportunity to freely explore the tools and think of their mathematical purposes before choosing a tool for use in structured activities later in the section and in centers."
- The Unit 2 Section Planning Guide outlines the opportunities students have throughout the unit to practice applying mathematical procedures. According to the materials, students practice applying mathematical procedures throughout the unit by applying various procedures for solving addition and subtraction story problems. They use flexible strategies, including solving problems with pictorial models, counting cubes, and counters.
- The Throughout the Unit section describes how Unit 4 provides opportunities for students to continue to develop their understanding of the structure of numbers in base ten, their ability to use methods flexibly to add and subtract within 2, and to practice making reasonable estimates of quantities.

Materials provide opportunities for students to evaluate procedures, processes, and solutions for efficiency, flexibility, and accuracy within the lesson and throughout a unit.

- In Unit 5, Lesson 9 Activity 2, the materials provide students the opportunity to create and share a "clear and organized" addition or subtraction story problem with a partner to solve using objects or pictures. Lastly, the materials direct the pair to create a poster with their story problem for others to solve. After solving, students discuss the most challenging aspects of the task.
- The materials include evidence of questions and prompts for students to evaluate procedures and processes. For example, in Unit 4, Lesson 9 Activity Synthesis, a question from the materials prompts students to think about a problem displayed and respond to the following question: "Could this equation represent the problem? Why or why not?"
- The materials provide opportunities for students to evaluate procedures, processes, and solutions for efficiency, flexibility, and accuracy. In Unit 8, the materials provide problems for students to solve using multiple strategies as they compare the processes and products of others. Students can represent two-digit numbers in as many ways as they can, reflect on representations that contain different amounts of tens, and do a gallery walk to compare representations.

Materials contain embedded supports for teachers to guide students toward increasingly efficient approaches.

- The materials in Unit 8, Lesson 7 Activity 1 provide explicit guidance that outlines student actions. For example, the materials state, "In this lesson, students revisit counting large

groups of objects or images and represent their count in different ways. With both objects and images, students consider how organizing into groups of ten is helpful."

- The grade 1, Unit 2 Unit Narrative provides evidence of embedded supports for teachers to guide students toward increasingly efficient approaches. The unit narrative provides teachers insight into prerequisite knowledge and skills and the student progression that can be expected throughout the unit. In addition, it provides a sample problem with an explanation/rationale for teacher guidance.
- The materials include evidence of embedded supports for teachers to guide students towards increasingly efficient approaches. For example, each unit contains unit narratives and learning goals that explain the skills that students will learn throughout the lessons, including prompts and questions that teachers can use throughout the lessons.

Balance of Conceptual and Procedural Understanding

5.3	Balance of Conceptual Understanding and Procedural Fluency	14/16
5.3a	Materials explicitly state how the conceptual and procedural emphasis of the TEKS are addressed.	0/2
5.3b	Questions and tasks include the use of concrete models and manipulatives, pictorial representation (figures/drawings), and abstract representations.	6/6
5.3c	Materials include supports for students in connecting, creating, defining, and explaining concrete and representational models to abstract (symbolic/numeric/algorithmic) concepts.	8/8

The materials do not explicitly state how the conceptual and procedural emphasis of the TEKS are addressed. Questions and tasks include the use of concrete models and manipulatives, pictorial representation (figures/drawings), and abstract representations. Materials include supports for students in connecting, creating, defining, and explaining concrete and representational models to abstract (symbolic/numeric/algorithmic) concepts.

Evidence includes, but is not limited to:

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

- The Scope and Sequence found in the Course Guide provides an overview of the conceptual and procedural skills students will develop in the course, but the materials do not explicitly state how the conceptual and procedural emphasis of the TEKS are addressed.
- In the Balancing Rigor section of the Design Principle, the materials state, "Access to new mathematics and problems prompts students to apply their conceptual understanding and procedural fluency to novel situations." The materials continue to explain that procedural fluency is developed over time through warm-ups, practice problems, centers, and other built-in routines. However, these lesson elements do not reference the TEKS.
- Each unit and lesson within the materials provides a learning goal that aligns with that unit and lesson. For example, Unit 5, Lesson 1 has the following learning goal: "Add tens or ones to two-digit numbers, without composing a ten, in a way that makes sense to them." The materials do not connect the learning goals to the process standards.

Questions and tasks include the use of concrete models and manipulatives, pictorial representation (figures/drawings), and abstract representations.

- The materials include evidence of questions that require the use of concrete models and manipulatives, pictorial representations, and abstract representations. For example, Unit 6 Section A Practice Problems include questions that require students to use strings to help them answer questions about length, compare visual models, and use words and numbers to describe comparisons between objects.

- The materials include evidence of tasks that require the use of concrete models and manipulatives, pictorial representations, and abstract representations. For example, Lesson 1 Activity 1 in Unit 6, Length Measurements Within 120 Units, requires students to use connecting cubes to measure and compare objects of various lengths. Within that lesson, they are to draw their objects to show their comparison. Additionally, they use a sentence starter to describe the length of objects.
- The materials include concrete representations of mathematical concepts in questions and tasks. The Scope and Sequence describes how students use concrete models and representations in centers to reinforce learning. For example, in Unit 6 Section B, students use concrete and pictorial representations to measure the length of objects, including tools such as connecting cubes, paper clips, and base-ten cubes as length units.

Materials include supports for students in connecting, creating, defining, and explaining concrete and representational models to abstract (symbolic/numeric/algorithmic) concepts.

- The materials include evidence of supports for students in connecting and creating concrete and representational models to abstract concepts. For example, in Unit 4, Lesson 2, students use connecting cubes and work together to find three representations, including numerical form, decomposition by tens, and drawings of towers of 10. In another activity, students "explain their rationale for matching representations and apply and make connections between the varying representations during the cool-down.
- Unit 4, Lesson 1 Activity 1 includes prompts to guide students in working together to count collections of manipulatives and create a representation of how they counted. The questions asked of students include, "How can you represent this so someone can see exactly how you counted?" and "Does your representation match how you counted?"
- In Unit 3, Lesson 15, students are presented with a representational model using counters on 10-frames and describe how many objects they see without counting. After a discussion, they generate an equation to match the image. In Activities 1 and 2, students solve story problems using counters and 10-frames and use pictorial representations to show their thinking.

Balance of Conceptual and Procedural Understanding

5.4	Development of Academic Mathematical Language	14/14
5.4a	Materials provide opportunities for students to develop their academic mathematical language using visuals, manipulatives, and other language development strategies.	3/3
5.4b	Materials include embedded guidance for the teacher addressing scaffolding and supporting student development and use of academic mathematical vocabulary in context.	2/2
5.4c	Materials include embedded guidance for the teacher to support the application of appropriate mathematical language to include vocabulary, syntax, and discourse to include guidance to support mathematical conversations that provide opportunities for students to hear, refine, and use math language with peers and develop their math language toolkit over time as well as guide teachers to support student responses using exemplar responses to questions and tasks.	9/9

The materials provide opportunities for students to develop their academic mathematical language using visuals, manipulatives, and other language development strategies. Materials include embedded guidance for the teacher addressing scaffolding and supporting student development and use of academic mathematical vocabulary in context. Materials include embedded guidance for the teacher to support the application of appropriate mathematical language to include vocabulary, syntax, and discourse to include guidance to support mathematical conversations that provide opportunities for students to hear, refine, and use math language with peers and develop their math language toolkit over time as well as guide teachers to support student responses using exemplar responses to questions and tasks.

Evidence includes, but is not limited to:

Materials provide opportunities for students to develop their academic mathematical language using visuals, manipulatives, and other language development strategies.

- The materials include evidence of opportunities for students to develop their academic mathematical vocabulary. In Unit 7, Lesson 1, the Lesson Narrative "Shapes That Are Solid," states, "The purpose of this lesson is for students to use the language they already have to talk about three-dimensional shapes. This gives teachers a chance to informally assess students' language, such as shape names, as well as words used to describe them (MP6)." The materials continue by describing how students will be re-introduced to the names of three-dimensional shapes, though students do not need to use specific geometric vocabulary. Instead, the teacher is guided to use precise language to identify and describe shapes, especially new terms such as rectangular prisms and triangular prisms, thereby modeling the language students can later use to describe them.
- The Warm-Up in Unit 3, Lesson 15 contains evidence of the opportunities available to support student development of academic mathematical language using visuals. For example, in this warm-up, the students look at visuals of two-color counters arranged on ten-frames. With a partner, they discuss their thinking about what they see. The teacher prompts, such as, "How

many do you see?" "How do you see them?" and "What equation could I write for each image?" support students in being able to use academic language as they discuss with peers.

- The Activity Narrative in Unit 4, Lesson 6 Activity 2 contains evidence of the opportunities available to support student development of academic mathematical language using manipulatives. For example, the students use a collection of connecting cubes as they respond to the following teacher questions and prompts: "Explain why you agree or disagree with Noah. Write the words agree or disagree in the first blank. Then write why you agree or disagree" which invites students to use mathematical language as they respond.

Materials include embedded guidance for the teacher addressing scaffolding and supporting student development and use of academic mathematical vocabulary in context.

- Unit 7, Lesson 5 Activity 1 provides discussion starters, prompts, and questions that teachers can ask throughout the lesson. For example, students determine if a shape is or is not a triangle based on its attributes. The teacher can ask, "What do all of these triangles have in common?" and refer to vocabulary found in the glossary (i.e., length, difference, etc.) to enhance student responses.
- Each activity includes evidence of embedded guidance for teachers addressing scaffolding student development and academic math vocabulary. For example, Unit 4, Lesson 2 Activity 1 includes prompts for the teacher throughout the lesson, including "How do you know these cards match?" and "Who has 10? How do you know?" These embedded supports help teachers scaffold student thinking and use of academic mathematical vocabulary through discussions.
- Embedded guidance for the teacher to scaffold student development and use of academic mathematical vocabulary in context is found in Unit 3, Lesson 19 Activity 2. For example, the materials include sentence stems that incorporate academic mathematical language, such as "My favorite equation is ____ because. . .," "First, I ____ because. . .," and "My approach and ____'s approach are alike because. . . ."

Materials include embedded guidance for the teacher to support the application of appropriate mathematical language to include vocabulary, syntax, and discourse to include guidance to support mathematical conversations that provide opportunities for students to hear, refine, and use math language with peers and develop their math language toolkit over time as well as guide teachers to support student responses using exemplar responses to questions and tasks.

- The materials include evidence of embedded guidance for teachers to support and provide opportunities for students to hear, refine, use, and develop math language with peers. Each activity includes prompts for discussions and the use of sentence frames to help students interact with their peers. For example, in Unit 8, Lesson 6 Activity 2, as students work together to create a question for the equation, the embedded guidance directs teachers to record comparison words and phrases such as more than, less than, how many fewer, and how many more on a visible display for students to use as they problem solve and call upon pre-identified students to share their question and how the representation helps them find the answer to the question as a strategic method to promote discourse.

- The materials include evidence of embedded guidance for teachers to support students' use of exemplar responses to questions and tasks. Throughout the lessons, there are several questions, task prompts, and sample responses as guides. For example, in Unit 8, Lesson 6 Activity 2, the prompt states, "Diego went on 7 rides. Priya went on 11 rides." After that, there is a Note for Evaluating Responses that includes "Sample response: How many fewer rides did Diego go on than Priya? How many rides did they go on all together?"
- In Unit 4, Lesson 2 Activity 1, the materials offer a set of discussion questions. This guidance focuses on preparing for and facilitating strong student discourse without restricting student responses. The guidance also directs students toward exemplary answers to questions and tasks using their developed mathematical language. In Unit 4, Lesson 16 Activity 2, students write the symbol for a number that makes a comparison statement true. The teacher provides guiding questions to support students. One example is, "What other numbers could you use to make this a true statement? Explain how you know."

Balance of Conceptual and Procedural Understanding

5.5	Process Standards Connections	6/6
5.5a	Process standards are integrated appropriately into the materials.	1/1
5.5b	Materials include a description of how process standards are incorporated and connected throughout the course.	2/2
5.5c	Materials include a description for each unit of how process standards are incorporated and connected throughout the unit.	2/2
5.5d	Materials include an overview of the process standards incorporated into each lesson.	1/1

The materials contain process standards that are integrated appropriately into the materials. Materials include a description of how process standards are incorporated and connected throughout the course. Materials include a description for each unit of how process standards are incorporated and connected throughout the unit. Materials include an overview of the process standards incorporated into each lesson.

Evidence includes, but is not limited to:

Process standards are integrated appropriately into the materials.

- The materials include a How to Use These Materials section that contains The Math Process Standards Chart. The chart outlines the TEKS process standards that are integrated in the materials.
- The materials include evidence of the process standards within the Activity Narrative description of each lesson. The mathematics process standards aligned to the lesson are in parentheses at the end of the description.

Materials include a description of how process standards are incorporated and connected throughout the course.

- The How to Use These Materials section describes how process standards are incorporated and connected throughout the course. It states, "The Math Process Standards describe the types of thinking and behaviors students engage in as they are doing mathematics." For example, "Students have an opportunity to explore the tools before they are asked to use them to represent mathematical situations in later lessons."
- The online materials include evidence of a description of how process standards, or mathematical practices, are connected throughout the course. In the How to Use These Materials section of the Teacher Guide, there is a Math Process Standards Chart section that states, "Teachers will notice that some instructional routines are generally associated with certain mathematical practices." Following, there is a description of how instructional

routines throughout the course align with mathematical practices. The chart also demonstrates how process standards connect throughout the course.

Materials include a description for each unit of how process standards are incorporated and connected throughout the unit.

- The materials include a description for each unit of how process standards are incorporated and connected throughout the unit. In the How to Use These Materials section, there is a Math Process Standards Chart. This chart correlates the process standards present in each unit of the materials and each lesson.
- The materials include a Process Standards Integration Document for the TEKS and illustrate how the process standards build and connect throughout the units by connecting the student expectation with a narrative description of how the process standard(s) are represented in the units.

Materials include an overview of the process standards incorporated into each lesson.

- The materials include a description for each unit of how process standards are incorporated in the lessons. In the How to Use These Materials section, there is a Math Process Standards Chart. This chart provides a useful overview of how the process standards are incorporated into each lesson.
- Mathematical Process Standards are found in the warm-up activity of every lesson throughout the units. In the A Typical IM Lesson section, the materials state that the warm-ups "place value on students' voices as they communicate their developing ideas, ask questions, justify their responses, and critique the reasoning of others."

Productive Struggle

6.1	Student Self-Efficacy	15/15
6.1a	Materials provide opportunities for students to think mathematically, persevere through solving problems, and to make sense of mathematics.	3/3
6.1b	Materials support students in understanding, explaining, and justifying that there can be multiple ways to solve problems and complete tasks.	6/6
6.1c	Materials are designed to require students to make sense of mathematics through doing, writing about, and discussing math with peers and teachers.	6/6

The materials provide opportunities for students to think mathematically, persevere through solving problems, and to make sense of mathematics. Materials support students in understanding, explaining, and justifying that there can be multiple ways to solve problems and complete tasks. Materials are designed to require students to make sense of mathematics through doing, writing about, and discussing math with peers and teachers.

Evidence includes, but is not limited to:

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

- In the A Typical IM Lesson section, the materials describe opportunities for students to think mathematically, persevere through solving problems, and make sense of mathematics. For example, the narrative for the warm-up states, "The warm-ups provide opportunities for students to bring their personal experiences as well as their mathematical knowledge to problems and discussions. They place value on students' voices as they communicate their developing ideas, ask questions, justify their responses, and critique the reasoning of others."
- The materials provide opportunities for students to persevere through problem-solving. In the Design Principles section, for example, the materials state, "A problem-based instructional framework supports teachers in structuring lessons so students are the ones doing the problem-solving to learn the mathematics." The section continues to describe the design of activities and routines that include opportunities for students to demonstrate their knowledge and for teachers to respond by prompting and guiding them toward the attainment of the knowledge without giving students the answers.
- In Unit 2, Lesson 1 Activity 2, the materials prompt teachers to "encourage students to think about the action in the problem and how it relates to operations." Students think independently and discuss with a partner, which helps them make sense of math and make connections between equations and story problems.

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

- The materials support students in understanding, explaining, and justifying that there can be multiple ways to solve problems. In Unit 3, Lesson 4 Activity 2, students work with a partner "to justify that they have found all the ways to make 10." They use two-color counters and ten frames to identify the different ways to make 10 and then write down equations that match how they decomposed. Working with the manipulatives helps them understand, discussing with a partner helps them explain, and noting the equation helps them justify.
- In Unit 2, Lesson 4 Activity 1, students work with a partner to solve a problem. Prompts for the teacher to ask students include, "Make a poster that shows your answer to the problem. It must have a drawing and an equation. Be ready to explain how you solved it and how you knew what equation to write." Later in the activity, teacher guidance includes prompting students to answer questions about the differences between the problems and how they were solved during a gallery walk.
- Unit 7 Lesson 6 Activity 1 supports students in understanding, explaining, and justifying that there can be multiple ways to solve problems. In this activity, students solve an Add-on story problem with the start unknown. The materials prompt students to represent and solve the problems in a way that makes sense to them. The materials include time to share their thinking with a partner.

Materials are designed to require students to make sense of mathematics through doing, writing about, and discussing math with peers and teachers.

- The Learning Mathematics by Doing Mathematics section states that the materials include "A problem-based instructional framework that supports teachers in structuring lessons so students are the ones doing the problem solving to learn the mathematics." In this model, teachers serve roles such as facilitator, synthesizer, and questioner in support of student-driven learning.
- In Unit 3, Lesson 13, the Warm-Up provides opportunities for students to discuss their understanding of adding 10 by participating in Number Talk, where they discuss the strategies they used to add 10 and explain their method. Later in the lesson in Activity 2, students have the opportunity to "share their plan with a partner before they begin," according to the Activity Narrative.
- In Unit 3 Lesson 13, Activity 1 provides opportunities for students to make sense of math by doing through tasks with their peers and teachers. Students are given materials which include a numberless and storyless problem to use with their partner and discuss questions such as "What do you notice?" and "What do you wonder?" The activity synthesis follows, prompting students to share their findings with the class as the teacher records responses and monitors their work.

Productive Struggle

6.2	Facilitating Productive Struggle	10/10
6.2a	Materials support teachers in guiding students to share and reflect on their problem-solving approaches, including explanations, arguments, and justifications.	6/6
6.2b	Materials offer prompts and guidance to assist teachers in providing explanatory feedback based on student responses and anticipated misconceptions.	4/4

The materials support teachers in guiding students to share and reflect on their problem-solving approaches, including explanations, arguments, and justifications. Materials offer prompts and guidance to assist teachers in providing explanatory feedback based on student responses and anticipated misconceptions.

Evidence includes, but is not limited to:

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

- In Unit 8, Lesson 4, the lesson narrative describes how teachers are supported in guiding students to share and reflect upon their problem-solving approaches and explanations. The materials state, "Students share different methods used and discuss how either addition or subtraction can be used to solve these problems." In Unit 8, Lesson 4, students also represent the method they used and explain to a partner "why it works to use addition or subtraction to solve these problems."
- Each lesson includes prompts that the teacher can use to guide students to share their problem-solving approaches. For instance, in Unit 3 Lesson 20 Activity 2, students solve story problems where "they reason abstractly and quantitatively" and decide what method or strategy they want to use. Afterward, they work with a partner to explain, argue, and justify their problem-solving method before sharing their methods with the class.
- The materials include supports for teachers in guiding students to reflect on their problem-solving approaches through explanations, arguments, and justifications. In Unit 3, Lesson 20, students select methods for problem-solving and justifying with their teacher and peers. The lesson synthesis prompts teachers to help students reflect on their problem-solving approaches by asking, "In this section, we worked on different ways to add within 20. What are you most proud of? What do you still need to practice?"

Materials offer prompts and guidance to assist teachers in providing explanatory feedback based on student responses and anticipated misconceptions.

- Materials offer prompts to assist teachers in providing explanatory feedback based on student responses and anticipated misconceptions. As stated in the Assessment section of the *Teacher Resource Guide*, "Each instructional task is accompanied by commentary about expected student responses and opportunities to advance student thinking so that teachers

can adjust their instruction depending on what students are doing in response to the task. Often, there are suggested questions to help teachers better understand students' thinking."

- For example, in Unit 2, Lesson 2 Activity 1, students explore equations and engage in discussion with their partners. The Advancing Student Thinking section provides prompts to assist teachers in giving feedback, such as "If students write an equation with an operation that does not match the story, consider asking: How did you decide whether to write an addition or subtraction equation? How can you act out this story with connecting cubes? What equation matches what you did with the cubes?"
- Materials offer guidance to assist teachers in providing explanatory feedback based on student responses and anticipated misconceptions. As stated in the A Typical IM Lesson section of the *Teacher Resource Guide*, "Next-day supports, such as providing students access to specific manipulatives or having students discuss their reasoning with a partner, are recommended for cool-down responses that should be addressed while continuing to the next lesson. Teachers are directed to appropriate prior grade-level support for cool-down responses needing more attention."
- For example, in Unit 3, Lesson 5 Activity 2. For example, in this lesson, students have eight minutes to work through word problems with a partner. Later in the activity, the materials prompt teachers to ask students who are struggling, "Can you explain how you found the value of each difference?" and "How can you use the same drawing you made for $6-1$, to find the value of $6-2$?"
- As stated in the Assessment section of the *Teacher Resource Guide*, "When appropriate, guidance for unfinished learning, evidenced by the cool-down, is provided in two categories: next-day support and prior-unit support. This guidance is meant to provide teachers ways to continue grade-level content while giving students the additional support they may need."