Edmentum, Inc.

Supplemental English Mathematics, 2
Exact Path Mathematics–Grade 2

MATERIAL TYPE	ISBN	FORMAT	ADAPTIVE/STATIC
Supplemental	**9781641032582**	**Digital**	**Adaptive**

Rating Overview

TEKS SCORE	TEKS BREAKOUTS ATTEMPTED	ERROR CORRECTIONS (IMRA Reviewers)	SUITABILITY NONCOMPLIANCE	SUITABILITY EXCELLENCE	PUBLIC FEEDBACK (COUNT)
100%	6	0	Flags Not in Report	Not Applicable	0

Quality Rubric Section

RUBRIC SECTION	RAW SCORE	PERCENTAGE
1. Intentional Instructional Design	17 out of 21	81%
2. Progress Monitoring	21 out of 23	91%
3. Supports for All Learners	32 out of 37	86%
4. Depth and Coherence of Key Concepts	14 out of 16	88%
5. Balance of Conceptual and Procedural Understanding	33 out of 38	87%
6. Productive Struggle	16 out of 19	84%

Breakdown by Suitability Noncompliance and Excellence Categories

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

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

IMRA Quality Report

1. Intentional Instructional Design

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

1.1 Course-Level Design

GUIDANCE	SCORE SUMMARY	RAW SCORE
1.1a	The materials do not include a rationale for learning paths across grade levels (vertical alignment).	4/5
1.1b	All criteria for guidance met.	3/3
1.1c	All criteria for guidance met.	2/2
1.1d	All criteria for guidance met.	2/2
1.1e	All criteria for guidance met.	2/2
—	**TOTAL**	13/14

1.1a – Materials include an alignment guide outlining the TEKS, ELPS, and concepts covered, with a rationale for learning paths across grade levels (vertical alignment) and within the same grade level (horizontal alignment) as designed in the materials.

Grade 2 materials include a detailed alignment guide that presents the Texas Essential Knowledge and Skills (TEKS), English Language Proficiency Standards (ELPS), and concepts covered at the grade level. Horizontal alignment within the grade is evident in the Knowledge Map and K–12 Learning Progression Report, showing how lessons build on one another sequentially.

ELPS supports are fully integrated through the Exact Path Materials and Skills Alignment to the *Texas ELPS Guide*, ensuring students continue to develop academic language as they engage with grade-level content.

While vertical alignment is evident, materials do not include rationales that explain why certain skills are prioritized at each grade level and how the progression of learning prepares students for future success.

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

The Exact Path welcome materials include an *Implementation Guide* called Implement with Fidelity to Accelerate Growth. This guide provides usage recommendations for struggling and advanced learners.

The materials in the Lesson Ideas include guidance for struggling learners, English Language Learners (ELL) support, and extension activities for above-grade learners.

The *Teacher Resource Manual* offers guidance and suggestions for differentiation during Guided Practice, Differentiated Support, and Independent Practice in each lesson. It includes descriptions of how teachers can address common errors and misconceptions. Additionally, it provides strategies for utilizing the materials effectively in both small-group and whole-group instruction.

The materials include adaptive resources for utilizing them as a course, assigning lessons or learning paths to specific students for intervention, enrichment, or extension from the Learning Paths page.

Educators can modify and adjust personalized learning pathways to meet the individual needs of learners to remediate or accelerate their learning.

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

Within the Exact Path Learn and Support, the article "Overview: Exact Path Diagnostic Results," teachers can edit student path placements after the diagnostic to meet the individual needs of the students. This will enable educators to create personalized and targeted learning experiences for the students.

A TEKS correlation guide for grade 2 is provided within the Exact Path Correlation to the *TEKS Guide*.

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

The materials include protocols with guidance for internalizing the grade 2 lesson through their online learning community, accessible through the Exact Path Help Center. The online materials include a professional learning hub with asynchronous training to guide educators.

The *Teacher Resource Manual* provides extensions, interventions, and tips to activate background knowledge. Additional verbiage for teachers is provided to give to students if they need further coaching on skill errors and misconceptions using the “If This, Then This” model.

Lesson Ideas for grade 2 include printable lesson plans that provide guidance on prerequisite skills needed, assessment tips, sample assessments, common misconceptions, and a glossary of key vocabulary.

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

The Exact Path Learn and Support: Implementation for Administrators Materials provides a calendar with key activities for schools to engage with throughout the year. The activities are divided into four categories: before school starts, the beginning of the year, the middle of the year, and the end of the year.

Instructions on how to set up classes and monitor student progress can be found under the Exact Path Learn and Support: Getting Started—Quickstart for Administrators.

Administrators, through the Understanding the Administrator Dashboard, receive guidance and instruction through online video support to monitor the percentage of enrolled students who have received learning paths, if students are meeting usage goals, and the number of unique skills that students have mastered.

The *Teacher Resource Manual* offers a detailed list of materials essential for effectively implementing Edmentum Lesson Ideas. It includes resources for guided practice, differentiated instruction, and independent practice. Additionally, the Observe and Respond section provides coaching guidance to address common student misconceptions.

1.2 Lesson-Level Design

GUIDANCE	SCORE SUMMARY	RAW SCORE
1.2a	This guidance is not applicable to the program.	N/A
1.2b	The materials do not include lesson components with suggested time frames.	4/5
1.2c	The materials do not contain support for families in Spanish and English for each unit, with suggestions on supporting the progress of their student.	0/2
—	**TOTAL**	4/7

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

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

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

Grade 2 materials provide lesson overviews with clear learning objectives for each lesson, including individualized pathways and ELL Teaching Tips. Lesson components are well-defined and include teacher/student materials, guided and independent practice, manipulatives, and printable resources, facilitating structured instruction.

Digital mastery assessments are available for monitoring student progress, and alignment to the ELPS is included, supporting English learners' academic language development.

A pacing guide outlines weekly suggested time allocations (40 minutes per subject, 8 skills over 12 weeks), though individual lesson component time-stamps are not included.

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

The materials contain a general parent letter in Spanish for parents to access the program and monitor their student's progress, but do not include support for families in Spanish for each unit, with suggestions on supporting each unit for grade 2.

The English materials contain a general parent note and a note to access Sensei, which provides families with the opportunity to view the Learning Path, the skills being worked on, and any trophies earned. The Sensei is not divided into units, causing there to be no unit and therefore no units with suggestions on supporting the progress of their child.

Edmentum Exact Path provides grade 2, Family Articles and Unit Worksheet Bundles, Activity Classroom Packs, At Home-Bingo Cards, and other materials in English (but not in Spanish) for families to support the progress of their student at home.

2. Progress Monitoring

Materials support educators in effective implementation through frequent, strategic opportunities to monitor and respond to student progress.

2.1 Instructional Assessments

GUIDANCE	SCORE SUMMARY	RAW SCORE
2.1a	All criteria for guidance met.	2/2
2.1b	All criteria for guidance met.	2/2
2.1c	The materials do not include printable versions.	3/4
2.1d	All criteria for guidance met.	4/4
2.1e	All criteria for guidance met.	4/4
—	**TOTAL**	15/16

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

The definition of diagnostic assessments is provided in the Diagnostic Glossary and in the introduction to diagnostics, within What are Diagnostics, where they are described as grade-agnostic tools designed to measure a student's knowledge level.

The intended purpose of formative assessments is evident in the lesson, "Length in the Real World," which includes a Common Misconceptions section and guidance for reteaching. Formative and Summative Assessments video further outlines Formative and Summative Assessments, explaining how each assessment type supports instructional decisions. Together, these sources provide both the definition and the instructional purpose required by the indicator.

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

Grade 2 materials provide robust support for both consistency and accuracy in assessment administration. Preparing for the Exact Path Diagnostic, test guidelines include procedures before, during, and after testing, are available on the Learn and Support page. Suggested scripts and time allotments are also provided to ensure standardized testing conditions across classrooms.

Lesson materials, such as those in "Exploring Multiplication," include classroom implementation plans, assessment tips, and pre-teaching vocabulary to ensure the accurate use of formative assessments. Accommodations for students with 504 plans, special needs, and learning and living programs (LLP) status are also included, supporting equitable and correct administration.

2.1c – Digital assessments include printable versions and accommodations, including text-to-speech, content and language supports, and calculators, that educators can enable or disable to support individual students.

Grade 2 digital assessments include accommodations that educators will be able to enable or disable to support individual students.

The Student Setting Enhancement document under Customizing Student Tools Access outlines allowing teachers to toggle text-to-speech, calculators, dictionaries, and translations, ensuring students can access the tools they need to demonstrate understanding.

While assessments can be printed from the browser, the materials do not support printing that preserves accommodations, such as large fonts, simplified formatting, or space for handwritten calculations.

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

Grade 2 materials provide TEKS-aligned diagnostic assessments in lessons such as "A to Ski Geometry," within Exact Path Diagnostic Assessments. Interactive item types include multiple choice and drag-and-drop.

Complexity grows from procedural to reasoning-level tasks as students apply visuals to solve problems, Exact Path Level 2 Skills and Concepts.

Assessments provide teachers with real-time data to differentiate instruction, support mastery, and guide students through progressively challenging content.

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

Grade 2 formative assessments in "A to Ski Geometry" Lesson Practice include multiple interactive item types, such as drag-and-drop, visuals, and text-entry questions. Complexity levels are evident through recall, identifying geometric shapes, application solving geometry problems using visuals, reasoning, explaining solution choices, and evaluation choosing the most efficient strategy, providing clear evidence of multiple cognitive levels beyond procedural tasks and meeting the criteria for full credit.

2.2 Data Analysis and Progress Monitoring

GUIDANCE	SCORE SUMMARY	RAW SCORE
2.2a	The materials do not include a rationale for each incorrect response.	2/3
2.2b	All criteria for guidance met.	1/1
2.2c	All criteria for guidance met.	2/2
2.2d	This guidance is not applicable to the program.	N/A
2.2e	All criteria for guidance met.	1/1
—	**TOTAL**	6/7

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

Grade 2 materials include scoring information and guidance to help educators interpret student performance. Teachers have access to reports such as the Skills Performance Report and Exact Path Diagnostic Reports, which provide data on strengths, weaknesses, time on task, domain-level performance, and progress over time.

Formative assessments, including interactive practices like Treehouse Takeaway, and rubrics listing correct answers and common misconceptions, support teacher understanding of student mastery.

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

Grade 2 materials provide comprehensive guidance, such as the Knowledge Map, Teacher Support Materials, and Learning Pathway for using tasks and activities in response to student performance trends on assessments.

The materials include guidance for facilitating activities, grouping students, addressing prerequisite skills, and implementing extension activities. For example, mini-lessons like "Length in the Real World" offer guiding questions to support checks for understanding, and diagnostic results are linked to specific lessons and activities designed to strengthen targeted skill areas.

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

Grade 2 materials provide comprehensive tools for tracking progress and growth. Teachers have access to resources such as the Knowledge Map, Impact Report, Skills Reports, Skills Status Legend, and K–12 Learning Progression Report, which together offer detailed insights into student mastery, growth patterns, and instructional needs.

For students, the materials include interactive and visual tools like the Game Board, Trophies, Printed Challenges, and the Understanding and Optimizing Exact Path Growth student tracker, which supports goal setting, action planning, and reflection on learning progress.

2.2d – If designed to be static, materials provide prompts and guidance to support educators in conducting frequent checks for understanding at key points throughout each lesson or activity.

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

2.2e – If designed to be adaptive, materials provide frequent checks for understanding at key points throughout each lesson or activity.

Grade 2 adaptive materials provide frequent checks for understanding at key points throughout lessons that adjust lesson content based on student responses. Lessons such as "That is Odd," "Place Value," and "Representing Numbers to 1000," incorporate embedded checks, immediate feedback, and adaptation of lesson difficulty and focus. These materials include assessment tips, manipulatives, and follow-up guidance for reteaching or extension. End-of-lesson interactive practices like “What's Your Number?” further support mastery through reinforcement activities.

3. Supports for All Learners

Materials support educators in reaching all learners through design focused on engagement, representation, and action/expression for learner variability.

3.1 Differentiation and Scaffolds

GUIDANCE	SCORE SUMMARY	RAW SCORE
3.1a	All criteria for guidance met.	1/1
3.1b	The materials do not provide preteaching and embedded supports for unfamiliar references in the text.	2/4
3.1c	All criteria for guidance met.	2/2
3.1d	All criteria for guidance met.	3/3
3.1e	All criteria for guidance met.	2/2
—	**TOTAL**	10/12

3.1a – Materials include explicit educator guidance for lessons or activities scaffolded for students who have not yet reached proficiency in prerequisite or grade-level concepts and skills.

Grade 2 materials include explicit educator guidance for lessons or activities scaffolded for students who have not yet reached proficiency in prerequisite or grade-level concepts and skills. Struggling Learner Option, for example, in the "Expanded Notation" lesson, the Struggling Learner Option directs students to play a game of “I Have . . . Who Has?” The activity offers the necessary scaffolding or additional support to help struggling learners engage with the content at a deeper level.

Similarly, in the "Place Value" lesson, the materials provide a Struggling Learner Option where students can work with base 10 blocks and sort number cards by place value, which offers more concrete support.

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

Grade 2 materials provide direct teaching of academic vocabulary in mini-lessons before the independent practice. In the lesson "Shape Spin," students can click on several different shapes to learn about the specific attributes of those shapes.

Teachers are provided guidance to pre-teach vocabulary in the Lesson Idea materials for the lesson. Located within the warmup of the above lesson, teachers ask students to write the shape's name on the whiteboard and hold it up for you to see as the teacher presents visuals of the shapes. This activity gives an opportunity for the teacher to expose students to the vocabulary within the lesson.

All online lessons include a link to a dictionary in the top left-hand corner. While going through the lesson, the student can access the dictionary to look up unfamiliar words.

Although there is an ELL Teaching Tips section, it does not provide pre-teaching and embedded supports for unfamiliar references in the text.

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

Grade 2 materials provide explicit educator guidance for enrichment and extension activities for students who have demonstrated proficiency in grade-level content. For example, in the lesson "Compare Whole Numbers and Represent and Interpret Data," there is an enrichment section that offers a worksheet for students who have mastered the material.

Similarly, in the lesson, "Real World Problems," an extension activity is provided to engage students who have already demonstrated proficiency.

3.1d – Digital materials include accommodations, including text-to-speech, content and language supports, and calculators that educators can enable or disable to support individual students.

Grade 2 digital materials include adjustable accommodations that educators can enable or disable to support individual students. Per the "Student Setting Enhancement" document under "Customizing Student Tools Access for Each Grade Level," features include text-to-speech, calculators appropriate to the grade level, and content and language supports, such as visual aids, simplified language, manipulatives, and interactive hints.

3.1e – Materials include educator guidance on offering options and supports for students to demonstrate understanding of mathematical concepts in various ways, such as perform, express, and represent.

Grade 2 materials provide opportunities for students to demonstrate understanding through different methods of expression or representation. For example, in the digital practice "Turtle Totals" and the worksheet for adding and subtracting within 100, students use the standard algorithm to add and subtract. The accompanying Lesson Ideas for the same lesson introduce the students to the commutative and associative properties to apply to addition and subtraction. Lastly, teachers are given guidance to provide students with counters to model addition and subtraction for struggling learners.

3.2 Instructional Methods

GUIDANCE	SCORE SUMMARY	RAW SCORE
3.2a	All criteria for guidance met.	5/5
3.2b	This guidance is not applicable to the program.	N/A
3.2c	All criteria for guidance met.	3/3
3.2d	All criteria for guidance met.	2/2
3.2e	All criteria for guidance met.	2/2
—	**TOTAL**	12/12

3.2a – Materials include explicit (direct) prompts and guidance for educators to build knowledge by activating prior knowledge, anchoring big ideas, and highlighting and connecting key patterns, features, and relationships through multiple means of representation.

Grade 2 materials activate prior knowledge in the "Foundations of Multiplication" lesson with the "Teacher Support Materials" by prompting students to make connections between repeat addition and multiplication during the Warm Up portion of the lesson.

In the Lesson Idea: "Length in the Real World," in the Assessment Tips before the instructional part of the lesson, students are asked to demonstrate how they would measure an object and observe whether they follow the three-step approach to measurement: “Decide what attribute they want to measure (in this case length); Pick an appropriate unit for measuring length (inches, feet, centimeters, meters); Compare the object to the unit by matching and measuring the length of the object.” These are three examples of ways to anchor big ideas.

3.2b – If designed to be static, materials include educator guidance for effective lesson delivery and facilitation using various instructional approaches.

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

3.2c – Materials include multi-tiered intervention methods for various types of practice and structures and educator guidance to support effective implementation.

The materials include multi-tiered intervention methods for various types of practice (guided, independent, collaborative practice). In the grade 2 Lesson Idea, "Foundations of Multiplication," the intervention activities outlined in the Struggling Learner section include guided practice, where the teacher helps students in a group to count how many squares are in each group and create the accompanying repeated addition problem to match the models. The intervention activities also include independent practice, where each student will work independently to match the repeated addition problem with the model as provided on the struggling learner activity.

The materials include multi-tiered intervention methods for various types of structures (whole group, small group, individual).

In the grade 2 Lesson Idea "Counting Numbers," the intervention activities outlined in the Struggling Learner section include a small group structure, where the teacher guides a small group to work together to find the “skip counting pattern” on the first problem listed on the independent practice worksheet. The lesson plan also includes intervention with an individual structure, where the teacher works with each student one-on-one as needed on the independent practice worksheet.

The *Teacher Resource Manual* provides guidance, suggesting grouping students for small-group instruction and for teachers to implement small group instruction using lesson Ideas. Teachers are instructed to follow these three steps: Use Data, Identify Resources, and use Guided Practice to Inform Instruction.

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

Grade 2 materials incorporate enrichment and extension activities that engage students in deeper learning. In the "Money" lesson, students work with advertisements and engage in a hands-on task where they determine the least amount of money needed to buy selected items, fostering both kinesthetic and visual learning.

The materials also provide guidance for educators on implementing these extension activities, such as in the "Interpreting Graphs" lesson, where students track snack consumption over one week and analyze the data on a graph.

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

Grade 2 materials also include prompts to help educators provide timely feedback to students. In the "Ordering and Comparing Numbers to 1,000" lesson, teachers are encouraged to ask probing questions, such as “Which group's number is greater, and why?” to ensure understanding of the concept. The materials also provide specific guidance to address misconceptions, like the common confusion between horizontal and vertical bars in a bar graph in the "Interpreting Graphs" lesson.

While formative assessment questions are embedded throughout the lessons to guide real-time feedback, such as in the Rockets Rule digital activity, the materials do not consistently offer detailed guidance on the types of feedback to give students when they make mistakes or misunderstand key concepts.

3.3 Support for Emergent Bilingual Students

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

GUIDANCE	SCORE SUMMARY	RAW SCORE
3.3a	This guidance is not applicable to the program.	N/A
3.3b	The materials do not include increasingly more academic language (at least one–three additional levels of language proficiency).	1/4
3.3c	All criteria for guidance met.	1/1
3.3d	All criteria for guidance met.	8/8
3.3e	This guidance is not applicable to the program.	N/A
—	**TOTAL**	10/13

3.3a – If designed to be static, materials include educator guidance on providing and incorporating linguistic accommodations for all levels of language proficiency [as defined by the English Language Proficiency Standards (ELPS)], which are designed to engage students in using increasingly more academic language.

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

3.3b – If designed to be adaptive, materials include embedded linguistic accommodations for all levels of language proficiency [as defined by the English Language Proficiency Standards (ELPS)], which are designed to engage students in using increasingly more academic language.

Grade 2 materials include embedded linguistic accommodations for one level of language efficiency, such as visual aids and sentence frames. In the lesson "Addition and Subtraction to 1000," there are manipulatives, such as base 10 blocks and place value charts, to support students' understanding of addition and subtraction—materials do not provide a systematic approach to support language development through the progressive use of academic language.

Grade 2 materials provide embedded linguistic accommodations, such as sentence frames and visual supports, as seen in lessons like "Addition and Subtraction to 1000" and "Interpreting Graphs." These supports help students engage with academic language, particularly in terms of mathematical vocabulary. Sentence frames like, “First, I add/subtract the _____,” guide student thinking, and vocabulary lists are provided in lessons to guide student thinking.

While there are some scaffolds to support student language development, the materials fail to include strategies that progressively move students through at least one to three levels of language proficiency.

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

Grade 2 materials provide guidance to support bilingual/ESL program educators. The materials include implementation guidance to support educators in effectively utilizing them within state-approved bilingual/ESL programs. For example, for grades K–12, the *ELPS Guide* identifies and highlights how the ELPS align with specific lessons. These connections help educators identify the relevant Exact Path Alignment Materials and Skills.

Within the Exact Path Learn and Support: English Learners, it states that Exact Path provides effective support for Multilingual Learners (MLL) in state-approved bilingual/MLL programs through: An English dictionary for additional support, explicit vocabulary instruction on key terms in each module, included background knowledge that students need to successfully complete the content, and media-rich instructional materials.

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

In the "Identifying Fact Families" lesson, in the ELL Teacher Tips section, academic vocabulary is supported through the use of graphic organizers, while cross-linguistic connections are facilitated through partner work activities and the inclusion of a native language.

The materials guide teachers to develop literacy and language through written and oral discourse. In the lesson, "Associative Property," the student is guided to complete the following written discourse: “Here is another addition problem with three numbers: 8 + 8 + 3. Which numbers would you add first—8 + 8 or 8 + 3? Why did you choose these numbers? Open the Notebook tool () to write your response.”

In grade 2, the materials in the Lesson Idea "Addition and Subtraction Facts," include key terms for teaching new vocabulary words and suggestions for visual organizers. For example, the materials state, “Provide a visual organizer to aid all students in structuring the activity or text.” The t-chart students fill out with Facts I Know and Facts I Need to Learn will help them know where to focus their attention during the lesson.

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

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

4. Depth and Coherence of Key Concepts

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

4.1 Depth of Key Concepts

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

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

Grade 2 materials offer a range of rigorous practice activities that promote conceptual understanding and real-world application. Students work through one-step and multi-step word problems within 1,000 using number lines, base 10 blocks, and comparative reasoning strategies. The "Real World Problems" lesson presents tasks where students analyze skip-counting charts, predict number patterns, and solve contextual math problems. Comprehension checks reinforce these skills across learning pathways in lessons such as "Class Rules" and "Numbers and Operations."

Despite these strong practice components, instructional assessments remain limited in depth, often asking students to match word problems to number sentences or choose a correct answer from a set, without requiring explanation or strategic modeling.

4.1b – Questions and tasks, including enrichment and extension materials, increase in rigor and complexity, leading to grade-level and above grade-level proficiency in the mathematics TEKS.

Grade 2 materials similarly support increased rigor through a blend of concrete and abstract problem types. In the "Vacation Time" lesson, Edmentum Exact Path—Assess & Teach—Priority Skills Lessons—Math/Grade 2/Measurement, Data, & Statistics, students move from interpreting picture graphs to constructing their own and answering higher-order questions based on their graphs.

Lesson extensions in money concepts require students to generate multiple coin combinations to meet a target value, supporting synthesis-level thinking. Additional enrichment is seen in time- and schedule-related tasks where students construct timelines from real-life events. Adaptive functionality ensures that proficient students receive incrementally complex tasks.

4.2 Coherence of Key Concepts

GUIDANCE	SCORE SUMMARY	RAW SCORE
4.2a	All criteria for guidance met.	1/1
4.2b	All criteria for guidance met.	1/1
4.2c	The materials do not connect students' prior knowledge of concepts and procedures to the mathematical concepts to be learned in future grade levels.	2/4
—	**TOTAL**	4/6

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

Grade 2 materials demonstrate horizontal coherence by connecting patterns, big ideas, and relationships across concepts within the grade level. The Learning Path provides a logical sequence from adding and subtracting within 20 to within 1,000, supporting skill extension.

Lessons such as "Reading and Writing Numbers" integrate manipulatives, place value charts, and written forms to reinforce place value concepts, while geometry tasks like Snip a Square build on students' prior shape knowledge. These connections help students apply and extend their learning across mathematical concepts.

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

The materials demonstrate some coherence vertically across concepts and grade bands, including connections from kindergarten through grade 2. For example, in kindergarten, the Lesson Idea "Number Composition" has students explore combinations that make ten. This connects to grade 1 in "Addition and Subtraction Facts," where students use known facts like 5 + 5 = 10 to solve problems such as 5 + 6 = 11. In grade 2, the worksheet Roll Models builds on prior learning by having students identify and describe 3-D shapes, a concept introduced in kindergarten when students explored basic shapes and their attributes.

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

Grade 2 materials address concepts that align with both prior and future learning, such as the Lesson Idea "Ordering and Comparing Numbers to 1,000," which extends comparison skills from kindergarten and grade 1. Shape identification lessons also build on prior grade-level learning.

However, the materials do not provide guidance to help educators connect students' prior knowledge of concepts or procedures to the mathematical concepts they are learning or will encounter in future grades.

4.3 Coherence and Variety of Practice

GUIDANCE	SCORE SUMMARY	RAW SCORE
4.3a	All criteria for guidance met.	2/2
4.3b	All criteria for guidance met.	2/2
—	**TOTAL**	4/4

4.3a – Materials provide spaced retrieval opportunities with previously learned skills and concepts across learning pathways.

Grade 2 materials provide intentional spaced retrieval opportunities through lessons and assessments such as "Butterfly Park," "Over the Cuckoo's Nest," "Turtle Totals," and "Addition and Subtraction Properties." Students engage with teacher-assigned practice that reinforces previously learned addition, subtraction, and skip-counting skills. Interactive digital tasks guide students to revisit foundational number concepts while applying them in new contexts, such as composing and decomposing numbers within 1,000, integrating these skills into addition and subtraction with regrouping lessons. This approach ensures repeated retrieval and strengthens mastery across learning pathways.

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

Grade 2 materials provide interleaved practice opportunities with previously learned skills and concepts across learning pathways. Activities such as Train of Thought, Station Subtraction, and Priority Skills Lessons such as "So Many Butterflies" incorporate review of addition, subtraction, and place value before applying these skills in word problems and new tasks. By prompting students to engage with both prior and current concepts in the same activity, the materials encourage strategy flexibility, conceptual understanding, and retention across interconnected skills and topics.

5. Balance of Conceptual and Procedural Understanding

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

5.1 Development of Conceptual Understanding

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.1a	The materials do not include questions and tasks that provide opportunities for students to analyze and evaluate models and representations for mathematical concepts and situations.	1/3
5.1b	All criteria for guidance met.	2/2
5.1c	All criteria for guidance met.	1/1
—	**TOTAL**	4/6

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

Grade 2 materials allow students to interpret models, but the opportunities for analysis and evaluation are minimal. For example, in the lesson "What's Your Number," students are shown number representations in expanded, word, and numeric form, which provides an opportunity to interpret the representations. However, the materials do not ask students to analyze the relationships between these forms or evaluate the usefulness of each form in different contexts.

In the digital practice Turtle Totals, students interpret number patterns by counting forwards and backwards, but the tasks only provide examples for students to count rather than analyze the patterns or evaluate the significance of the numbers in context. Similarly, in the lesson "Symbolize Addition and Subtraction," students are asked to identify how to solve a problem but are not given the chance to evaluate the problem-solving methods or justify their choices. The materials focus more on procedural steps rather than critical thinking or evaluation of the models used.

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

Grade 2 materials provide multiple opportunities for students to create concrete models and pictorial representations. For example, in the lesson "Foundations of Multiplication," students use beans to represent repeated addition models, which helps them connect the concept of equal groups to multiplication. In the lesson "Expanded Notation," students are asked to draw pictorial models for each of the numbers provided, allowing them to visually represent the concept.

The materials also encourage the use of counters and a hundred chart to count forwards and backwards by 10s, providing a concrete method for students to represent numbers. In Length in the Real World, students use real rulers to measure objects around the classroom, creating concrete models of measurement. Additionally, the lesson "2–3 Dimensional Shapes" includes activities where students find

real-world objects that represent various shapes, as well as tasks where they cut and glue shapes onto paper, creating both concrete and pictorial representations of geometric concepts.

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

Grade 2 materials include opportunities for students to apply their conceptual understanding to new situations. In the lesson "Ordering and Comparing Numbers to 1,000," students are asked to apply their knowledge of comparing numbers to a real-world context by comparing page numbers in books. This task encourages students to transfer their understanding of numerical comparison to a new setting, which is a significant application of their conceptual understanding.

The extension activity in Counting Numbers, where students go on a scavenger hunt to find items to count by 5s and 10s, is another opportunity for students to apply their learning to a real-world scenario.

5.2 Development of Fluency

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

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

Grade 2 materials include tasks designed to promote automaticity and fluency with mathematical procedures necessary for grade-level success. In the "Addition and Subtraction Facts" lesson, students create flashcards to practice addition and subtraction within 20, reinforcing the automatic recall of basic facts.

The Turtle Totals digital practice provides 24 additional problems to build fluency further, helping students solidify their number fact recall.

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

Grade 2 materials offer opportunities to practice mathematical procedures that promote the flexibility and accuracy for solving problems in various ways. For instance, in the Bunches of Butterflies activity, students can model subtraction using base 10 blocks, or the standard algorithm with place value.

The materials provide opportunities for students to practice applying the efficiency of their strategies by completing one of three worksheets that are provided with the lesson. Students can choose modeling subtraction using base 10 blocks, skip counting on a number line, or the standard algorithm.

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

Grade 2 materials effectively integrate opportunities for students to evaluate mathematical representations, models, strategies, and solutions for efficiency, flexibility, and accuracy. In the "Foundations of Multiplication" lesson, students can write repeated addition problems as multiplication, promoting reflection on the efficiency of their strategies.

Similarly, in "Hooray for Arrays," students evaluate whether a group of objects is even or odd, relate even numbers to doubles addition, and connect repeated addition to multiplication and rectangular array models. These tasks encourage flexibility in thinking and accuracy in applying mathematical concepts.

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

Grade 2 materials support students in selecting the most efficient approaches when solving mathematical problems, particularly in lessons like "Foundations of Multiplication" and "Hooray for Arrays."

In "Foundations of Multiplication," students are guided to recognize that repeated addition can be written as multiplication, which promotes a more efficient approach to solving problems. In "Hooray for Arrays," students evaluate whether a group of objects is even or odd, which helps them transition from less efficient counting methods to more efficient methods like grouping or using arrays.

5.3 Balance of Conceptual Understanding and Procedural Fluency

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

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

Grade 2 materials explicitly outline how both the conceptual and procedural emphasis of the TEKS are addressed. Lessons like "Length in the Real World" use hands-on measuring tools to support students' conceptual understanding of measurement, while the procedural component is supported through tasks like estimating the length of real-world objects.

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

Grade 2 materials effectively integrate concrete, pictorial, and abstract models to meet the TEKS. For example, in the Look–Books!, Place Value Addition worksheet, students work with abstract models (number sentences) and pictorial representations (drawings) to solve problems.

The "Money" lesson uses concrete models (coin manipulatives) to help students understand the value of money. Additionally, in the "Money" lesson, the materials incorporate concrete models, such as coin manipulatives, to help students understand the value of money by engaging them in activities that involve skip counting and using coins to represent amounts. This aligns with the TEKS requirement for determining the value of a set of coins.

The materials offer adaptive learning opportunities where students use strategies like making a ten and counting on or back using number lines, connecting multiple representations to deepen their understanding of addition and subtraction.

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

Grade 2 materials provide strong supports for students to connect and create concrete, representational, and abstract models. For instance, in the Look–Books! Place Value Addition worksheet, students first engage with an abstract model (number sentence) and then create a pictorial representation of the problem, connecting both models to solve addition problems.

Similarly, in the "Money" lesson, students use coin manipulatives as concrete models to represent amounts, transitioning to numeric and symbolic representations.

The materials include tasks like representing numbers on a hundreds chart with base 10 blocks, promoting connections between visual and symbolic representations of mathematical concepts. These supports help students move seamlessly between concrete experiences and abstract mathematical reasoning.

5.4 Development of Academic Mathematical Language

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.4a	All criteria for guidance met.	1/1
5.4b	All criteria for guidance met.	2/2
5.4c	All criteria for guidance met.	1/1
5.4d	All criteria for guidance met.	2/2
5.4e	All criteria for guidance met.	2/2
—	**TOTAL**	8/8

5.4a – Materials provide opportunities for students to develop academic mathematical language using visuals, manipulatives, or other language development strategies.

Grade 2 materials showcase a variety of opportunities for language development using visuals and manipulatives. In the "Ordering and Comparing Numbers to 1,000" lesson, students use notecards to visually compare numbers, practicing terms like greater than and less than.

The "Fractional Parts" lesson uses visual representations of fractions, with students practicing terms like numerator and denominator.

Additionally, the "Let's Taco About 3-Digit Numbers" lesson incorporates manipulatives like place value charts and blocks to reinforce place value vocabulary such as digit and value. In the "Telling Time" lesson, visuals of an analog clock help students apply language such as hour hand and minute hand while practicing time-telling.

5.4b – Materials include embedded educator guidance to scaffold, support, and extend students' use of academic mathematical vocabulary in context when communicating with peers and educators.

Grade 2 materials embed guidance that supports students' academic language development by embedding educator guidance to scaffold and support communication with peers. For instance, in the lesson "Symbolize Addition and Subtraction," students are guided to use terms like symbolize and expression as they work with word problems, promoting academic vocabulary through the process of symbol representation.

The lesson "Representing Numbers to 1,000" encourages students to use vocabulary like greater than and less than as they compare numbers, with teacher prompts to reinforce these terms in context.

Additionally, in the "Compare Whole Numbers" lesson, students use 10-rods to solve problems and explain their methods to the group, incorporating vocabulary such as place value and method to extend students' use of academic vocabulary when communicating with peers.

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

Grade 2 materials incorporate embedded guidance for students to apply academic vocabulary in discourse. In the lesson, "Addition and Subtraction Properties," students use counters to explore the associative and commutative properties, helping them reinforce vocabulary such as sum and order, while working through examples.

In the digital activity, So Many Butterflies on Shapes, students engage with questions that prompt them to use terms like numeral and place value to describe representations of numbers using blocks.

Additionally, in the lesson, "Add and Subtract 1-Digit and 3-Digit Numbers Within 1,000," students use a number line to solve problems, reinforcing academic language related to addition and subtraction in context.

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

Grade 2 materials emphasize the importance of peer discussions for refining mathematical language. In the lesson, "Ordering and Comparing Numbers to 1,000," teachers are provided with guiding questions to prompt students to discuss the relative value of numbers, using terms like greater than and less than in context.

Similarly, in the "Length in the Real World" lesson, students engage in hands-on activities where they measure objects and discuss their measurements using vocabulary like estimate, unit, and length.

The lesson "Interpreting Graphs," also provides opportunities for students to discuss how data is represented visually, prompting them to describe the differences between vertical and horizontal bar graphs using appropriate vocabulary.

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

Grade 2 materials include guidance to anticipate and address student responses. In the lesson "Ordering and Comparing Numbers to 1,000," teachers are provided with exemplar answers for questions like, “Who sold fewer t-shirts?” and guidance on how to prompt students to use number lines and rounding to solve problems.

The "Exploring Multiplication" lesson offers strategies for addressing student misconceptions about multiplication, including literal thinking, and difficulties with repeated addition. Teachers are provided

with steps for breaking down equations visually and symbolically, allowing students to discuss their reasoning.

The materials also include guidance for redirecting inaccurate student responses, helping ensure that students engage with mathematical concepts accurately.

5.5 Process Standards Connection

GUIDANCE	SCORE SUMMARY	RAW SCORE
5.5a	All criteria for guidance met.	1/1
5.5b	The materials do not include a description of how process standards are incorporated and connected throughout the learning pathways.	0/2
5.5c	The materials do not include an overview of the TEKS process standards incorporated into each lesson.	0/1
—	**TOTAL**	1/4

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

Grade 2 materials continue to emphasize the integration of TEKS process standards. The "Compare Whole Numbers" lesson incorporates concrete tools, like place value blocks, to compare numbers, while the "Real World Problems" lesson encourages students to use a problem-solving mat to tackle real-world tasks.

Similarly, the "Exploring Multiplication" lesson introduces different strategies to represent multiplication, such as creating equal groups and using skip counting. These lessons help students apply mathematical reasoning in diverse contexts, supporting their ability to analyze and solve problems effectively.

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

Grade 2 materials lack clear guidance on the integration and connection of process standards. The "Representing Numbers to 1,000" lesson includes a section with National Council of Teachers of Mathematics (NCTM) standards, but does not include references to the TEKS process standards. Similarly, the "Real World Problems" lesson mentions key math objectives, but there is no explanation of how the process standards are integrated into the instructional model or how they support the problem-solving tasks.

This omission across multiple lessons hampers the ability to connect problem-solving strategies and reasoning skills to the learning activities.

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

Grade 2 materials do not provide an overview of the TEKS process standards for each lesson. For example, in the "Exploring Multiplication" lesson, while content standards are clearly outlined, there is no mention of the process standards or how they are embedded into the lesson. Similar issues occur in lessons like "Real World Problems," where the content standards are present, but the process standards are omitted.

This absence makes it difficult for educators to connect problem-solving and reasoning skills with the content, reducing the effectiveness of the materials in supporting student development in these areas.

6. Productive Struggle

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

6.1 Student Self-Efficacy

GUIDANCE	SCORE SUMMARY	RAW SCORE
6.1a	All criteria for guidance met.	3/3
6.1b	The materials do not support students in justifying that there can be multiple ways to solve problems and complete tasks.	2/3
6.1c	All criteria for guidance met.	3/3
—	**TOTAL**	8/9

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

Grade 2 materials provide multiple opportunities for students to think mathematically, persevere through problem-solving, and make sense of mathematics. In the "Exploring Multiplication" lesson, students are introduced to multiple strategies for solving multiplication problems, such as repeated addition, skip counting, and using a number line. The teacher asks, “Which strategy worked best for you?” and “ Why did you choose that method?” This allows students to reflect on their strategies and evaluate their reasoning.

In the "So Many Butterflies" lesson, the materials encourage perseverance by prompting students to continue solving the problem after encountering difficulties. The teacher asks, If this method is not working, what is another strategy we could try?

In the "Add and Subtract within 1,000" lesson, students are asked to explain how they arrived at their answers using place value strategies: “Can you explain how you used the hundreds, tens, and ones to solve this?” These prompts help students make sense of their solutions and deepen their understanding of the math concepts.

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

Grade 2 materials support students in understanding that there can be multiple ways to solve problems and complete tasks. In the "Exploring Multiplication" lesson, students are prompted to explain their strategies for multiplication, whether through repeated addition, counting, or skip counting.

Additionally, in the lesson "Representing Numbers to 1,000," students are asked to represent numbers using base 10 concepts and explain their reasoning, further reinforcing the idea that there are multiple

valid approaches. The materials encourage students to use different strategies and reflect on their approaches, promoting flexibility in problem-solving.

While the materials ask students to explain their strategies, they do not provide enough guidance for justifying that multiple strategies can be valid. This limits opportunities for students to fully justify and analyze the efficiency of different problem-solving approaches.

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

Grade 2 materials require students to make sense of mathematics through multiple opportunities for students to do, write about, and discuss math with peers and educators. In the "Money" lesson, students work in pairs to solve problems involving coins and amounts. After discussing their strategies, the teacher prompts, “How did you use the coins to make the correct amount?” and “What other ways could you have made the same amount?” This encourages peer discussions about problem-solving strategies. To write about math, in the "Representing Numbers to 1,000" lesson, students are asked to write number sentences that represent place value concepts: "Write the number sentence for the number 564 using hundreds, tens, and ones."

For discussing math, in the "Interpreting Bar Graphs" lesson, students are encouraged to talk with their peers about how to interpret and compare the data. The teacher asks, "What do you see in the graph? Can you explain why one bar is taller than the other?" This promotes collaboration and deepens students' understanding of how to analyze data.

6.2 Facilitating Productive Struggle

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

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

Grade 2 materials include prompts and guidance to support educators in facilitating student reflection on problem-solving approaches, including explanations, arguments, and justifications. In the "Exploring Multiplication" lesson, students are asked to explain which strategy they used to solve a multiplication problem. Teachers prompt, “Which strategy worked best for you?”, “Why do you think that strategy worked?”, and “Can you explain why you think this method is better than the others? This encourages students to reflect on their reasoning and articulate their justifications.

In the "Add and Subtract within 1,000" lesson, students are asked to explain how they arrived at their answers using place-value strategies. The educator prompts, “Can you explain why you chose that strategy?” and “What made that method work?” These questions help students justify their methods and explore alternative approaches.

However, while students are encouraged to explain their thinking, the materials do not provide sufficient opportunities for students to argue their reasoning. In the "Bar Graphs" lesson, although students discuss, justify, and explain their understanding of bar graphs, the materials lack prompts that encourage students to argue their methods or explore alternative approaches to solving the problems.

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

Grade 2 materials provide prompts and guidance to support educators in providing explanatory feedback based on student responses. In the "Exploring Multiplication" lesson, the teacher is prompted to ask students which strategy they used to solve a multiplication problem, encouraging reflection on their approaches.

Additionally, in the "Add and Subtract within 1,000" lesson, the materials include guidance for educators to assist students who struggle with partial sums or differences. In the Rock Collector activity, students are asked to find and correct mistakes in problems, which promotes reflective thinking and justification of their reasoning.