Accelerate Learning Inc.

Supplemental English Mathematics, Algebra II
Math Nation+ Texas–Algebra 2

MATERIAL TYPE	ISBN	FORMAT	ADAPTIVE/STATIC
Supplemental	**9798330805044**	**Both Print and Digital**	**Static**

Rating Overview

TEKS SCORE	TEKS BREAKOUTS ATTEMPTED	ERROR CORRECTIONS (IMRA Reviewers)	SUITABILITY NONCOMPLIANCE	SUITABILITY EXCELLENCE	PUBLIC FEEDBACK (COUNT)
100%	50	0	Flags Addressed	Not Applicable	0

Quality Rubric Section

RUBRIC SECTION	RAW SCORE	PERCENTAGE
1. Intentional Instructional Design	16 out of 23	70%
2. Progress Monitoring	13 out of 24	54%
3. Supports for All Learners	30 out of 39	77%
4. Depth and Coherence of Key Concepts	16 out of 16	100%
5. Balance of Conceptual and Procedural Understanding	38 out of 38	100%
6. Productive Struggle	21 out of 21	100%

Breakdown by Suitability Noncompliance and Excellence Categories

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

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

IMRA Quality Report

1. Intentional Instructional Design

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

1.1 Course-Level Design

GUIDANCE	SCORE SUMMARY	RAW SCORE
1.1a	All criteria for guidance met.	5/5
1.1b	All criteria for guidance met.	3/3
1.1c	Materials do not contain a TEKS correlation guide based on diagnostic assessments.	1/2
1.1d	All criteria for guidance met.	2/2
1.1e	Materials do not contain resources and guidance for instructional leaders to support educators with implementing the materials as designed.	0/2
—	**TOTAL**	11/14

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

The MathNation+ (MN+) Algebra II materials include an alignment guide outlining the Texas Essential Knowledge and Skills (TEKS) and English Language Proficiency Standards (ELPS) addressed in each lesson. *Coursework Teacher Edition,* Unit 0, "State-Specific Resources" includes the "TEKS and ELPS by Lesson" document, which provides a detailed mapping of the Algebra II TEKS and ELPS to individual lessons, making the alignment transparent and accessible. Complementing this, the "Lesson Alignment by Standard" document organizes the TEKS codes and lists all lessons that address each standard, reinforcing the consistency of standards coverage across the course.

The alignment guide includes a rationale for learning paths across grade levels (vertical alignment), illustrating how content builds over time to support long-term conceptual development. The *TEKS Correlation Guide with Breakouts* references prerequisite standards from Algebra I and identifies extensions into future coursework, such as the progression from solving systems of equations in Algebra I Unit 6 to Algebra II Unit 13 and from exponential functions in Algebra I Unit 5 to Algebra II Units 4 and 5. These cross-grade references demonstrate intentional design in the sequencing of mathematical concepts.

The materials also include a rationale for learning paths within the same grade level (horizontal alignment), demonstrating how concepts are sequenced and reinforced to ensure coherence within the grade. For example, TEKS A.2.2A is addressed in Units 1, 3, and 5, and A.2.4F appears in multiple lessons

across Units 7 and 8, as shown in both the "Lesson Alignment by Standard" and "TEKS and ELPS by Lesson" documents. This repeated attention to key standards supports conceptual reinforcement and instructional coherence throughout the course.

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

Materials include an implementation guide that provides educators with a comprehensive overview of program components and instructional routines. *Coursework Teacher Edition,* Unit 0, contains a comprehensive implementation guide embedded within the "Course Overview" and "State-Specific Resources." These resources provide usage recommendations and instructional strategies to support effective educator use. Suggested instructional routines include a warm-up, guided activity, collaborative activity, practice, and wrap-up, followed by digital practice opportunities such as Check Your Understanding and Test Yourself! activities.

To support diverse learning needs, the materials offer guidance for adapting instruction across a range of classroom contexts. Just-in-time supports are embedded in "Teacher Prep Videos," which offer lesson-specific guidance and instructional tips. Furthermore, the "Support for All Learners" section provides strategies for adapting instruction to meet diverse student needs, including advanced learners.

Educator-facing resources also promote effective instructional practices by embedding strategies that foster discourse, model thinking, and deepen content knowledge. The "Instructional Routines & Strategies" document provides additional support, featuring techniques like Algebra Talk, Notice and Wonder, and Number Talks, to enhance student engagement and mathematical discourse.

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

Materials include a TEKS correlation guide that provides educators with a clear mapping of standards to instructional content. The *Coursework Teacher Edition*, Unit 0, provides a *TEKS Correlation Guide with Breakouts* within the "State-Specific Resources" section. This guide maps lessons to the corresponding TEKS and ELPS standards and includes a breakdown of standards by lesson. Additionally, the materials feature a diagnostic assessment within the On-Ramp component, designed to identify students' readiness levels and assign personalized learning pathways based on their performance.

The On-Ramp diagnostic provides differentiated pathways for student learning, but the materials do not identify recommended skill entry points aligned to specific TEKS based on diagnostic results. The *TEKS Correlation Guide with Breakouts* supports general alignment but does not include explicit connections between diagnostic outcomes and targeted instructional starting points. Progress monitoring tools are available through the *Coursework Teacher Edition*, allowing educators to track student growth and adjust instruction accordingly.

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

Materials include protocols and corresponding guidance to support unit and lesson internalization. Within the "Course Overview" section of the *Coursework Teacher Edition*, each unit begins with an overview that outlines the instructional focus of each lesson, categorized by "conceptual understanding (C), procedural fluency (F), and real-world application (A)." This structure helps educators understand the progression and intent of the unit.

For lesson internalization, each lesson includes a "Teacher Prep Video" that provides a general overview of the lesson objectives, instructional strategies, and expected learning outcomes. These videos support just-in-time planning and deepen teachers' understanding of the content. Additional support includes access to a "Study Expert" video, digital practice tools for students, and a "Support for All Learners" section that offers differentiated strategies.

The "Instructional Routines & Strategies" document in the "Teacher Resources" section further supports internalization by outlining consistent instructional practices and routines across lessons. Collectively, these resources ensure teachers have the tools and guidance to internalize and effectively deliver each unit and lesson.

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

The *MN+ Product Review Guide* outlines a variety of resources designed to support classroom educators, such as full-color student workbooks, WCAG-compliant digital workbooks, and lesson preparation videos. Teachers are provided with tools like formative assessments, customizable digital assessments (EdgeXL), and interactive instructional videos featuring multiple "Study Experts." However, the materials do not include any resources that are explicitly tailored for instructional leaders. While it mentions that reports are available to "school administrators" and "district administrators," these are general usage and progress reports rather than dedicated leadership tools.

1.2 Lesson-Level Design

GUIDANCE	SCORE SUMMARY	RAW SCORE
1.2a	Materials do not contain detailed lesson plans aligned to the TEKS and ELPS; materials do not contain assessment resources aligned to the TEKS and ELPS.	3/7
1.2b	This guidance is not applicable to the program.	N/A
1.2c	All criteria for guidance met.	2/2
—	**TOTAL**	5/9

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.

The MN+ Algebra II materials include teacher and student resources that support lesson implementation and are aligned with the TEKS and ELPS. For example, in *Coursework Student Edition,* Unit 1, Lesson 1, Types of Functions, the materials provide a student edition, an answer key, a warm-up slide, and a teacher video. The *Coursework Teacher Edition* includes a "Course Overview" that outlines lesson components and pacing guidance. According to the "TEKS and ELPS by Lesson" resource, Unit 1, Lesson 1 addresses TEKS A.2.8A and ELPS 1.E, 3.E, 4.F, and 5.B.

Lesson components are present and organized with suggested timeframes that guide pacing. Each lesson is structured to include a warm-up, guided activity, collaborative activity, independent practice, and a wrap-up. These components are designed to support instructional flow within a 40- to 50-minute class period. The "TEKS and ELPS by Lesson" document confirms that lessons throughout the course consistently reference both the TEKS and ELPS, supporting accessibility and instructional consistency.

The materials do not include detailed lesson plans with learning objectives aligned to the TEKS and ELPS, nor do they provide assessment resources aligned to these standards. While the materials offer lesson-level formative assessments such as Check Your Understanding and unit-level spiral reviews titled Test Yourself!, these tools are not explicitly aligned to the TEKS and ELPS. The digital platform also includes EdgeXL, a customizable digital assessment generator, but individual assessment alignment is not provided.

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.

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

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

Materials include family support resources in Spanish and English for each unit. For example, at the beginning of Unit 5, Exponential Relationships, a family support video is available in both languages, offering guidance on how families can support their students' learning.

The materials include recommendations for family engagement through "Family Support Letters" and videos explaining how to use them at home. These resources are accessible in the digital *Coursework Student Edition* under the "Getting Started" section, and teachers can print them for distribution.

Teachers can access these supports in the *Coursework Teacher Edition*, "Course Overview," Unit 0, "Course Resources." The platform also includes a family letter in Spanish and English. Additionally, it offers family communication tools in over 100 languages, enhancing accessibility for diverse student populations.

2. Progress Monitoring

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

2.1 Instructional Assessments

GUIDANCE	SCORE SUMMARY	RAW SCORE
2.1a	All criteria for guidance met.	2/2
2.1b	All criteria for guidance met.	2/2
2.1c	Materials do not contain educator-controlled text-to-speech or content and language supports for individual students.	2/4
2.1d	Materials do not contain diagnostic assessments that vary in complexity or type of interactive item.	0/4
2.1e	All criteria for guidance met.	4/4
—	**TOTAL**	10/16

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

The MN+ Algebra II materials include defined types of assessments and their intended purposes, as outlined in the *Coursework Teacher Edition's* "Course Overview." The "Progress Monitoring" section provides definitions for each assessment type and explains how assessments are used to support instruction and monitor student progress.

Formative assessments are embedded throughout the instructional sequence and include tools such as Warm-Ups, Wrap-Ups, and Check Your Understanding. These are designed to monitor student learning during instruction and provide data on both individual and overall trends. For example, the Check Your Understanding component at the end of each lesson helps educators identify how students are responding to key concepts and adjust their instruction accordingly.

Summative assessments, such as Test Yourself! and EdgeXL, are used at the end of units to evaluate student mastery of the content. For instance, in Unit 6, Quadratic Relationships, the Test Yourself! includes a practice tool at the end of the unit to assess cumulative understanding. Similarly, Unit 5 provides a Test Yourself! Assessment. In Unit 5, Lesson 4, the Check Your Understanding task is embedded to reinforce lesson objectives.

The *Coursework Student Edition* also integrates these assessments directly into the instructional flow. In Unit 8, Lesson 2, students encounter Check Your Understanding tasks at the lesson level and Test Yourself! assessments at the unit level. Additionally, the "Unit 0 Course Overview" introduces the range of assessments available and their role in providing data on student knowledge and proficiency.

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

The materials guide educators in administering instructional assessments through clearly defined tools and timelines that are consistently applied. The *Coursework Teacher Edition* "Course Overview" introduces EdgeXL, a platform for creating and delivering assessments in a standardized manner. Teachers are directed to use Check Your Understanding questions at the end of each lesson and Test Yourself! assessments at the end of each unit. The "Flexible Implementation Options" section provides a suggested timeline for administering these assessments, supporting consistent pacing and instructional planning across classrooms.

The materials include detailed descriptions of assessment types and formats in the "Progress Monitoring" section to ensure accurate administration. These tools align with the intended learning outcomes, ensuring that each assessment measures what it is intended to. The On-Ramp diagnostic exam further supports accuracy by generating individualized learning pathways based on student performance, allowing for targeted instruction and assessment.

The "Product Review Guide" provides additional guidance and outlines standardized procedures to ensure all students receive consistent instructions and testing environments. Teachers can also access comprehensive assessment reports to monitor student usage, progress, and performance, supporting data-driven decision-making.

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

The materials include both printable and digital versions of assessments, as outlined in the *Coursework Teacher Edition,* Unit 0, "Course Overview." Teachers can create assessments in either format using EdgeXL, providing flexibility in how assessments are administered.

The materials currently offer a basic and a graphing calculator, both available to all users at any time. A scientific calculator is in development, along with an opt-out feature that will allow educators to choose which calculators students may access or to disable calculator access entirely. This functionality supports differentiated assessment accommodations and aligns with guidance indicating that digital assessments should include calculators that educators can enable or disable to support individual students.

Materials do not include educator-controlled accommodations for text-to-speech or content and language supports within the digital platform. While these features are available to students, educators cannot enable or disable them to support individual student needs.

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

The materials include a diagnostic assessment in the On-Ramp component of the *Coursework Student Edition*, which consists of multiple-choice items. TEKS correlation documents are provided and aligned to each unit, but individual diagnostic assessment items do not indicate the specific TEKS.

Students are presented with questions exclusively in a multiple-choice format in "My Pathway." No other question types, such as open-ended or constructed-response questions, are available. Teachers guide students to this diagnostic by directing them to choose a topic and access "My Pathway." Students then complete the assessment by selecting answers from predefined options.

There is no evidence in the materials that questions vary in type or complexity.

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

Materials include a variety of formative assessments that are aligned to the TEKS and incorporate interactive item types with varying levels of complexity. These assessments are embedded throughout the instructional sequence and are designed to monitor student understanding and support instructional decision-making.

Students complete a Check Your Understanding task in Unit 5, Lesson 3, which includes interactive formats and requires the application of exponential function concepts. Similarly, in Unit 5, Exponential Functions, the Test Yourself! assessment provides additional opportunities for students to demonstrate their understanding through tasks that vary in format and cognitive demand.

The materials include formats that support varied learning styles and provide multiple entry points for students to demonstrate their understanding. For example, in Unit 8, Lesson 6, the Check Your Understanding includes multiple item types, such as multiple-choice, text-entry, and graphing.

Materials include tasks that require both conceptual understanding and analytical reasoning. For example, students respond to formative assessment questions in Unit 6, Lesson 9: The Equation of a Parabola. These questions involve identifying key features of a parabola, such as the focus and directrix, from a graph and analyzing constraints to define the locus of points.

2.2 Data Analysis and Progress Monitoring

GUIDANCE	SCORE SUMMARY	RAW SCORE
2.2a	Materials do not contain guidance for interpreting student performance or rationales for each response.	0/3
2.2b	Materials do not contain guidance for the use of included tasks and activities to respond to student trends in performance on assessments.	0/1
2.2c	All criteria for guidance met.	2/2
2.2d	Materials do not contain prompts to support educators in conducting frequent checks for understanding.	1/2
2.2e	This guidance is not applicable to the program.	N/A
—	**TOTAL**	3/8

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

The MN+ Algebra II materials provide basic scoring information. Student responses on assessments are marked as correct or incorrect, with visual indicators such as green or red squares to denote performance. Teachers can access individual and class-level reports through the platform's "Progress Monitoring" tool. For example, in the *Coursework Teacher Edition,* teachers track student performance on items like Check Your Understanding and Test Yourself! questions.

The materials do not offer guidance for interpreting student performance. There are no rationales for each correct and incorrect response.

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

The instructional materials provide teachers with access to performance reports that show students' responses to assessments. These include individual, group, and whole-class data for tasks such as Check Your Understanding and Test Yourself! questions, as well as EdgeXL assessments. Reports are accessible through the platform's "Progress Monitoring" tools and are referenced in the "Product Review Guide."

The materials do not include guidance on how to use tasks or activities in response to student performance trends. There is no evidence of instructional strategies, decision-making supports, or activity recommendations based on assessment results.

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

The materials include tools for teachers to track student progress and growth. Through the testing platform, teachers can access reports from beginning, middle, and end-of-year assessments, as well as monitor performance on tasks such as Check Your Understanding and EdgeXL assessments. These tools are referenced in the "Product Review Guide" and are accessible through the *Coursework Teacher Edition*, the "Course Overview," and the "State-Specific Resources."

The materials include tools for students to track their progress and growth. Students receive immediate feedback on both Check Your Understanding tasks at the end of each lesson and Test Yourself! tasks at the end of each unit. In EdgeXL, teachers can configure assignments to allow students to review incorrect answers, supporting reflection and learning. Additionally, a structured template is provided in *Coursework Teacher Edition*, Unit 0, to accompany Test Yourself! tasks. This template guides students to show their work, reflect on mistakes, and engage with solution videos, promoting goal-setting and self-monitoring as they prepare for unit and state assessments.

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

The materials include guidance for educators to check for understanding. For example, the *Coursework Student Edition,* Unit 2, Lesson 1 includes a Check Your Understanding feature in each lesson. The *Coursework Teacher Edition* references these checks in the "Course Overview" and "Product Review Guide." Teachers can also view how students answered individual assessment questions, and pre-, mid-, and end-of-unit assessments are available to monitor understanding over time.

The materials do not consistently provide frequent prompts or structured guidance to support educators in checking for understanding throughout each lesson or activity. While end-of-lesson checks and unit-level assessments are present, there is limited support for conducting ongoing, in-the-moment formative checks. Additionally, the materials do not include guidance on how to interpret or respond to student responses during these checks.

2.2e – If designed to be adaptive, materials provide 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 adaptive.

3. Supports for All Learners

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

3.1 Differentiation and Scaffolds

GUIDANCE	SCORE SUMMARY	RAW SCORE
3.1a	All criteria for guidance met.	1/1
3.1b	All criteria for guidance met.	4/4
3.1c	All criteria for guidance met.	2/2
3.1d	Materials do not contain educator-controlled text-to-speech or content and language supports for individual students.	1/3
3.1e	All criteria for guidance met.	2/2
—	**TOTAL**	10/12

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

The MN+ Algebra II materials provide explicit educator guidance for lessons and activities that are scaffolded to support students who have not yet reached proficiency in prerequisite or grade-level concepts and skills. Teacher preparation videos are available for each lesson and unit. For example, in *Coursework Teacher Edition,* Unit 8, Lesson 2, the teacher video connects prerequisite skills from Algebra 1, solving two-step equations, to support students who have not yet reached proficiency. Similarly, in Unit 6, Lesson 1, the teacher's video scaffolds the lesson by reviewing factoring trinomials using an area model, reinforcing foundational skills from Algebra 1. These videos guide educators on how to activate prior knowledge and structure lessons to meet diverse learner needs effectively.

In addition to videos, the materials embed reteaching opportunities that explicitly review and reinforce key mathematical concepts. For instance, *Coursework Teacher Edition,* Unit 2, Lesson 1 revisits the laws of exponents through repeated multiplication exercises, helping students solidify their understanding. Unit 4, Lesson 1 includes a preparation video that supports teachers in assessing student learning and adapting instruction throughout the lesson.

Unit plans in MN+ Algebra II outline a progression where each lesson builds on the previous one, providing a scaffolded pathway from foundational to more advanced concepts.

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

The materials include explicit educator guidance for language supports related to academic vocabulary development. In the *Coursework Student Edition,* Unit 1, Lesson 1, vocabulary terms are presented in light blue rectangular boxes, each accompanied by a video link where the term is defined and applied in context. In Unit 4, Lesson 1, collaborative activities provide written definitions and instructional videos to support understanding of terms related to arithmetic sequences. Additionally, Unit 11, Lesson 1, reinforces vocabulary through associated videos. Materials also include structured opportunities for students to use academic language in context, such as in Unit 4, Lesson 2, where students discuss the *domain* and *range* of sequences with partners using precise mathematical terminology.

The materials also support understanding of unfamiliar references in text through embedded tools and resources. The *Coursework Student Edition,* Unit 0, "Course Overview," includes an interactive glossary that defines new terms and provides multimedia supports to clarify unfamiliar concepts. The *Independent Skills Practice Book* offers guiding tips and video tutorials to help students navigate and comprehend unfamiliar references. These supports are designed to ensure that students can access and engage with the content, even when encountering new or complex ideas.

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

The materials described in the "MN+Review Guide" and *Coursework Teacher Edition,* Unit 0, provide explicit educator guidance for enrichment and extension activities. "Teacher Prep Videos" include recommendations for lesson implementation and differentiation strategies. The On-Ramp personalized diagnostic learning tool generates individualized learning pathways based on student performance, enabling students who demonstrate proficiency to accelerate to more advanced content. The EdgeXL assessment generator allows teachers to customize and assign assessments to individual students, supporting targeted enrichment.

The *Coursework Student Edition* "Study Expert" videos offer flexible, asynchronous instructional support in multiple languages and formats, allowing students to engage with content at their own pace and revisit or advance through material independently. The *Coursework Teacher Edition* outlines opportunities to extend learning within and across courses, guiding educators in supporting students who are ready for content that is above their grade level. For example, the Learning Pathway graphic provides explicit guidance for extending learning beyond Algebra II by illustrating connections to precalculus-level content. After mastering Algebra II modules such as A2.22 Rational Functions (TEKS A.2.9A), students can progress to advanced topics like trigonometric functions and polynomial identities, which are foundational in

precalculus. This structured progression supports differentiated instruction by offering clear extension opportunities beyond grade-level expectations.

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

The materials currently offer a basic and a graphing calculator, both available to all users at any time. A scientific calculator is in development, along with an opt-out feature that will allow educators to choose which calculators students may access or to disable calculator access entirely. This functionality supports differentiated assessment accommodations and aligns with guidance indicating that digital assessments should include calculators that educators can enable or disable to support individual students.

Materials do not include educator-controlled accommodations for text-to-speech or content and language supports within the digital platform. While these features are available to students, educators cannot enable or disable them to support individual student needs.

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

The instructional materials provide opportunities for students to demonstrate their understanding of mathematical concepts through hands-on activities and guided practice. For example, the *Coursework Student Edition,* Unit 1, *Independent Skills Practice Book* provides video tutorials and guidance for students to identify different functions. Similarly, in Unit 12, Lesson 3, students explore the effects of transformations through guided activities and accompanying videos that support diverse ways of demonstrating understanding.

To support students in expressing their mathematical understanding, the materials include sentence stems and structured guidance that help articulate reasoning. Unit 3, Lesson 1 incorporates various response formats, including multiple-choice, fill-in-the-blank, and student completion, to support diverse demonstration methods. Additionally, in the *Coursework Student Edition*, Unit 8, Lesson 2, students engage in solving radical equations by outlining solution steps, verifying answers, and reflecting on peers' reasoning. They write notes that explain their agreement or disagreement, fostering critical thinking and collaborative learning.

3.2 Instructional Methods

GUIDANCE	SCORE SUMMARY	RAW SCORE
3.2a	All criteria for guidance met.	5/5
3.2b	All criteria for guidance met.	2/2
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**	14/14

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

The MN+ Algebra II materials include explicit 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. In *Coursework Teacher Edition,* Unit 1, Lesson 1, the "Teacher Prep Video" guides educators in connecting the collaborative activity to prior grade-level content, specifically referencing students' earlier exposure to foundational math concepts. Similarly, the Unit 2, Lesson 1, "Teacher Prep Video" revisits the laws of exponents and connects them to prior learning, supporting knowledge building through a structured progression. The Unit 6, Lesson 1, "Teacher Prep Video" highlights factoring quadratics using both the box method and factoring by grouping, emphasizing the recognition of patterns through multiple representations.

The materials also support educators in anchoring big ideas and connecting mathematical relationships across lessons. In Unit 7, Lesson 11, the "Teacher Prep Video" reinforces the concept of solving quadratics by factoring, completing the square, and taking square roots, while explicitly linking the x-intercepts, zeros, and roots as solutions to these equations. Unit 12, Lesson 5 includes a card sort activity that helps match functions, graphs, and tables of values, guiding educators in helping students identify consistent patterns across representations. Additionally, the "Unit 3 Overview" provides a structured outline of lessons and prompts that support educators in activating prior knowledge and reinforcing key mathematical relationships through diverse instructional formats.

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

The materials provide educators with guidance for effective lesson delivery through structured supports embedded in the *Coursework Teacher Edition.* The Unit 5, Lesson 2, "Teacher Prep Video" outlines strategies, including collaborative activities, independent work, pair-share techniques, and matching

exercises, to support lesson implementation. Similarly, the Unit 6, Lesson 1, "Teacher Prep Video" guides educators through the use of these same instructional strategies, offering a consistent framework for planning and delivering instruction. These resources help educators prepare for instruction by modeling effective facilitation techniques and the sequencing of activities.

The materials also support facilitation using various instructional approaches that are embedded throughout the *Coursework Student Edition* and *Coursework Teacher Edition*. In Unit 6, Lesson 6, students solve quadratic equations by completing the square using both algebra tiles and algebraic methods, progressing through guided instruction, collaborative work, and independent practice. In Unit 12, Lesson 1, students determine criteria for classifying odd and even functions using a similar instructional sequence. Additional examples include Unit 3, Lesson 1, where students identify domains of radical expressions through collaboration, guided simplification, and peer discussions. In Unit 8, Lesson 8, students engage in solving rational equations, complete written error analyses, and participate in partner discourse on transformations. These examples demonstrate the integration of guided, collaborative, and discourse-based learning strategies across the program.

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 and structures, along with educator guidance to support effective implementation. In *Coursework Student Edition*, Unit 6, Lesson 1, the lesson begins with a collaborative activity, transitions into a guided session, returns to a second collaborative task, and concludes with independent practice. This structure supports differentiated learning and reinforces concepts through multiple formats. Similarly, in Unit 7, Lessons 2, 3, 4, and 5, students begin with a guided partner activity, move into a collaborative maze task, and finish with an independent wrap-up ticket. The *Coursework Teacher Edition,* "Course Overview," further recommends that teachers use collaborative activities in pairs or small groups and pause for whole-group discussions when needed, offering flexible strategies for tiered support.

The materials also provide consistent guidance for structuring lessons using a variety of instructional phases, including guided instruction, collaborative learning, and independent practice. In the *Coursework Student Edition*, Unit 6, Lesson 8 begins with a guided exploration of a real-world quadratic scenario, transitions to a collaborative task, and includes a second guided activity before ending with independent practice and a check for understanding. Similarly, in Unit 12, Lesson 1, students begin with a collaborative activity to explore the end behavior of odd and even functions, perform a guided activity, and conclude with independent practice through a wrap-up ticket.

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

The instructional materials include enrichment and extension methods that support various forms of engagement through the use of Learning Pathways. These pathways outline opportunities for students to extend their learning either within the current course or by previewing content from future courses. This structure enables differentiated learning and supports students who are ready to exceed grade-level expectations. Additional enrichment opportunities are embedded throughout the lesson design, including student-led Collaborative Activities that promote exploration and application of concepts, and Wrap-Up tasks, such as Error Analysis, that encourage reflection and deeper reasoning. The On-Ramp diagnostic tool further supports extension by adapting to individual student readiness, allowing students to accelerate to new topics independently.

Multiple teacher-facing resources and platform features provide guidance to support educators in effective implementation. Each lesson includes "Teacher Prep Videos" that provide instructional recommendations, highlight potential challenges, and suggest differentiation strategies. The platform also offers robust reporting tools that allow educators to monitor student progress across assessments, practice tools, and instructional videos, enabling data-informed instructional decisions. These supports collectively ensure that educators are equipped to implement enrichment and extension opportunities.

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

The materials include prompts and guidance to support educators in providing timely feedback during lesson delivery. In the *Coursework Teacher Edition*, Unit 6, Lesson 8, the "Teacher Prep Video" explains how students can use different points and forms of a quadratic function to reveal key features, such as the axis of symmetry and intercepts. This guidance helps educators identify opportunities to prompt students during collaborative activities and provide feedback based on their reasoning and thought processes. In the *Coursework Teacher Edition,* Unit 2, Lesson 2, the "Teacher Prep Video" supports feedback through think-pair-share strategies, offering specific questions to help students recall prior knowledge about rational exponents and allowing teachers to assess understanding in real time.

Additional examples include *Coursework Teacher Edition's* Unit 8, Lesson 2, and Unit 8, Lesson 3, which prompt educators to check for understanding before proceeding. In these lessons, teachers are encouraged to ask guiding questions about multiplying binomials and to pause for whole-group discussions if students are struggling. This approach enables educators to assess students' thinking and address misconceptions in real time. The "Course Overview" in the *Coursework Teacher Edition* further reinforces this practice by recommending collaborative structures and feedback checkpoints throughout instruction.

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	Materials do not contain guidance on providing or incorporating more than two levels of academic language.	2/4
3.3b	This guidance is not applicable to the program.	N/A
3.3c	Materials do not contain implementation guidance to support educators in effectively using the materials in state-approved bilingual/ESL programs.	0/1
3.3d	Materials do not contain embedded guidance to support emergent bilinguals in building background or making cross-linguistic connections through oral and written discourse.	4/8
3.3e	This guidance is not applicable to the program.	N/A
—	**TOTAL**	6/13

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.

The MN+ Algebra II materials provide educators with specific strategies for incorporating linguistic accommodations, such as multilingual video support, scaffolded questioning, and translation tools. In the *Coursework Student Edition*, Unit 13, Lesson 1, students begin with a collaborative activity on systems of equations. The lesson includes a video that can be viewed in multiple languages, and questions progress from dropdown-based prompts to open-ended responses. Students can also access translation tools offering over 100 language options through the tools menu.

These accommodations help students develop and use academic language by engaging them in tasks that promote listening, speaking, reading, and writing. In the *Coursework Student Edition,* Unit 7, Lesson 1, students can view vocabulary videos introducing imaginary numbers in English or their native language. Students are also prompted to summarize findings with a partner, encouraging academic discourse. A glossary and translation features in the settings menu further support academic language development.

The guidance addresses the needs of English learners at two proficiency levels, as outlined in the ELPS. Beginning-level students benefit from translation tools and multilingual glossary videos in English, Spanish, Haitian Creole, Portuguese, and ASL. Intermediate learners are supported through scaffolded

questioning that progresses from dropdowns to open-ended responses. However, the materials lack explicit guidance for more than two proficiency levels. There are no tiered sentence stems or differentiated tasks aligned with ELPS descriptors, limiting the materials' ability to fully support all proficiency levels.

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.

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

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

The materials do not include implementation guidance that supports educators in planning and delivering instruction aligned with bilingual/ESL program goals. While the "TEKS and ELPS by Lesson" document identifies which ELPS are addressed in each lesson, it does not provide instructional strategies or planning tools for educators. The *Coursework Teacher Edition* "Course Overview" mentions language supports such as multilingual videos and glossaries, but these are student-facing features and not educator-facing guidance.

Materials do not align with state-approved bilingual/ESL program requirements by failing to incorporate educator guidance tailored to specific program models. The materials offer general accessibility features, such as translation tools, glossary videos in multiple languages, and a digital *Coursework Student Edition* that can be translated into over 100 languages. However, these supports are not accompanied by implementation strategies for dual language, transitional bilingual, or ESL pull-out programs.

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

The materials support emergent bilingual (EB) students in developing academic vocabulary by embedding strategies such as structured oral and written discourse. The *Coursework Student Edition,* Unit 7, Lesson 1, introduces students to vocabulary related to imaginary numbers through instructional videos. These videos reinforce terminology and provide repeated exposure to academic language, helping students solidify their understanding. Similarly, *Coursework Student Edition*, Unit 4, Lesson 1, introduces vocabulary related to arithmetic sequences through video content that supports comprehension and encourages the use of precise mathematical terms.

To increase comprehension, the materials include embedded guidance that helps students access content through written justifications and collaborative discussions. In the *Coursework Teacher Edition,* Unit 14, Lesson 2, students are expected to use academic vocabulary, such as *quotient, asymptote,* and *rational function*, in written explanations and mathematical reasoning. These tasks promote comprehension by requiring students to articulate their understanding in writing. Additionally, opportunities for partner discussions and class conversations allow students to use academic language orally, reinforcing comprehension through verbal interaction.

The materials do not help build background knowledge for EB students. While some lessons include familiar terms that may connect to students' prior knowledge, teachers do not receive explicit strategies to build background knowledge. The materials do not include culturally relevant examples or teacher guidance to introduce unfamiliar concepts before instruction begins.

The materials do not promote cross-linguistic connections by encouraging students to engage in oral and written discourse that draws on their home language or compares linguistic structures. While translation tools and multilingual videos are available, the tools are not integrated into instructional routines in a way that fosters metalinguistic awareness. There are no embedded activities or teacher guidance that prompt students to identify cognates, explore similarities and differences between languages, or reflect on how their language knowledge supports learning in English.

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.

The MN+ Algebra II materials provide structured learning pathways that include guided, collaborative, and independent practice opportunities, as well as embedded checks for understanding. These components are designed to support students in demonstrating depth of understanding aligned to the TEKS.

For example, in Unit 5, Lesson 2, students engage in a sequence of guided activities, collaborative tasks, independent practice, and checks for understanding. These components are designed to support the demonstration of Depth of Knowledge (DOK) and are aligned with the TEKS. The lesson concludes with a Test Yourself! assessment, reinforcing the instructional goals through cumulative practice.

Students engage in collaborative and independent tasks in Unit 6, Lesson 8, that require the application of polynomial concepts. Instructional assessments, such as Check Your Understanding, are embedded within the polynomial functions pathway and require students to analyze key features of polynomials using equations, graphs, and tables. These assessments provide real-time feedback, enabling students to reattempt tasks and support the development of patterns and concepts.

In Unit 10, Lesson 7, the materials integrate mathematical reasoning with contextual analysis. Students work on factoring polynomials within a real-world context. Given a specific scenario, students identify the volume and dimensions of an object, create a table of values based on class data, and discuss outcomes with a partner. Students then provide written interpretations of various points in relation to the problem and connect their polynomial solutions to the scenario. In the *Independent Skills Practice Book*, students engage in guided practice that requires interpreting polynomial expressions and applying factoring strategies to solve contextual problems, reinforcing conceptual understanding aligned to the TEKS.

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.

The materials include questions and tasks that increase in rigor and complexity across lessons, supporting students in developing a deep understanding of the mathematics TEKS. These include guided practice, collaborative activities, independent tasks, wrap-ups, and checks for understanding that increase in rigor and complexity. Questions and tasks in *Coursework Student Edition*, Unit 2, include rewriting radical expressions, determining domains, verifying inverses algebraically, and analyzing key features of square root and cube root functions (TEKS A.2.7G). In Unit 3, students deepen their understanding of radical functions and inverse relationships through both algebraic and graphical analysis. The unit culminates in applying and interpreting transformations, reinforcing analytical skills essential for advanced study of functions and their inverses (TEKS A.2.2B).

Enrichment and extension materials are strategically embedded to challenge students beyond grade-level expectations. For example, in *Coursework Student Edition,* Unit 5, Lessons 4 and 10, students solve real-world exponential problems using exponential modeling, graphing, and logarithmic equations. The questions and tasks are designed to support progression toward grade-level and above-grade-level proficiency. In the *Independent Skills Practice Book,* students graph and analyze trigonometric functions, identify key features and transformations, and interpret periodic behavior in context. These tasks increase in rigor and support the development of grade-level and above-grade-level proficiency in the TEKS.

The progression of tasks within and across units reflects a deliberate increase in cognitive demand, aligned with the expectations of the Algebra II TEKS. For example, in Unit 14, students begin by identifying radian measures and connecting them to the unit circle. Students then examine the properties of sine and cosine functions and progress to modeling with trigonometric functions. The progression in complexity enables students to apply trigonometric concepts in real-world and mathematical contexts.

4.2 Coherence of Key Concepts

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

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

The MN+ Algebra II materials demonstrate coherence across concepts horizontally within the grade level by introducing foundational ideas early and building on them throughout the course. Unit 1, Function Foundations, presents the types of functions that recur in later units. Unit 2, Equivalent Numerical Expressions, connects exponents, radicals, and rational exponents, emphasizing their equivalence through rewriting expressions and reinforcing structural understanding through simplification and the laws of exponents.

In Unit 6, Lesson 1, students deepen their understanding of functions by factoring, graphing, and analyzing key features of quadratic functions, while also connecting algebraic and graphical representations. Unit 8, Radical and Rational Functions, revisits radical functions from Unit 3, Square Root and Cube Root Functions, and introduces rational functions, expanding the range of function types addressed.

Unit 12, Transformations, and Unit 13, Systems of Equations, build on prior learning by focusing on transformations of functions and systems of equations, respectively, providing students with opportunities to apply and connect multiple function types. Throughout the course, students engage in numerical, algebraic, and contextual reasoning. Real-world applications, such as exponential growth and constant percent change, support the integration of mathematical ideas across various topics.

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

The materials demonstrate vertical coherence across concepts and grade bands by building on mathematical foundations introduced in earlier grades and extending them into more complex applications appropriate for Algebra II. *Coursework Student Edition*, Unit 1 revisits linear, quadratic, and exponential functions introduced in middle school and Algebra 1, and extends this foundation by introducing absolute value and piecewise functions. These connections support a progression in students' understanding of function types and their representations. The materials also emphasize structural understanding, multiple representations, and contextual interpretation. Students connect

algebraic expressions to graphical features such as zeros, intercepts, and vertices, and interpret these features in real-world contexts, reinforcing conceptual continuity across grade levels.

Later units continue this vertical alignment by reinforcing and expanding on earlier concepts. In *Coursework Student Edition*, Unit 4, students build on their prior knowledge of arithmetic and geometric sequences from Algebra 1 and are introduced to geometric series, reinforcing patterns and relationships across grade levels. Unit 6 continues this vertical progression by deepening students' understanding of factoring, a skill introduced in earlier grades, through advanced techniques such as factoring sums and differences of cubes and completing the square. These skills prepare students to solve polynomial equations and analyze graphs in future courses, such as precalculus. In the *Independent Skills Practice Book,* students analyze transformations of functions using tables and graphs, identifying how shifts, stretches, and reflections affect key features. These tasks reinforce conceptual connections across grade levels and deepen understanding of function behavior, supporting vertical coherence.

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

The materials demonstrate coherence across lessons and activities by connecting students' prior knowledge of concepts and procedures to the mathematical concepts to be learned in the current and future grade levels. According to the *Coursework Teacher Edition*'s "Lesson Alignment by Standard," Unit 6 supports conceptual understanding by guiding students to rewrite quadratic expressions in various forms to reveal structure and key features (TEKS A.2.4D). Simultaneously, students apply procedural skills such as factoring trinomials, factoring by grouping, and completing the square (TEKS A.2.7E). These methods are then connected to graphical interpretations of quadratic functions, reinforcing coherence within the current grade level.

This progression is further supported by the *Coursework Teacher Edition,* MN+ Algebra 2 Learning Pathways graphic, which visually maps how foundational topics, such as expressions and equations (TEKS A.1.2) and rewriting polynomial expressions (TEKS A.1.7), lead into more advanced topics, like quadratic relationships and radical/rational exponents. This pathway illustrates how conceptual and procedural knowledge are intentionally sequenced to build toward deeper understanding.

Future learning is supported through conceptual development in the *Coursework Student Edition,* Unit 10, where students explore polynomial functions of higher degrees and analyze their structure (TEKS A.2.7D). Procedurally, students apply the division of polynomials and determine linear and quadratic factors using algebraic methods (TEKS A.2.7C, A.2.7E), preparing them for advanced function analysis. This alignment across lessons and grade levels reflects a coherent instructional design that supports long-term mathematical development.

4.3 Coherence and Variety of Practice

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

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

The MN+ Algebra II materials provide spaced retrieval opportunities with previously learned skills. *Coursework Student Edition,* Unit 1, Lesson 7, introduces students to function foundations by revisiting linear, quadratic, and exponential functions through graphs, tables, and equations. They identify key features, such as intercepts, intervals of increase or decrease, and domain and range. These foundational concepts are extended in later lessons through the analysis of absolute value and piecewise functions. In the *Independent Skills Practice Book*, students revisit these function types and transformations across multiple tasks, reinforcing conceptual understanding through repeated exposure in varied formats.

Additional examples of spaced retrieval are embedded throughout the course. In Unit 2, a warm-up activity prompts students to evaluate integers raised to a power before transitioning into equivalent radical expressions, reinforcing exponent rules introduced in earlier grades. This approach continues in Unit 5, where students identify parts of an exponential equation from a graph and later apply this knowledge to explore the relationship between exponential and logarithmic functions. As the unit progresses, students build on this foundation to solve equations without a calculator and engage in real-world modeling tasks. Retrieval opportunities are also embedded in the *Independent Skills Practice Book* and "Correlation Documents," which align with earlier content and reinforce learning across the course.

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

Materials provide interleaved practice opportunities by prompting students to apply previously learned skills and concepts across multiple units and learning pathways. In the *Coursework Student Edition*, Unit 3, Lesson 1, students engage with earlier content through the Warm-Up, Guided Activity, Practice, Wrap-Up, and Check Your Understanding tasks, which integrate prior knowledge into new contexts. This structure is mirrored throughout the materials, as in Unit 5, Lesson 1, where students revisit and apply earlier concepts related to exponential functions and logarithms.

In the *Coursework Teacher Edition* for Unit 4, Sequences and Series, students engage with linear and exponential functions, concepts introduced in earlier units. As students progress through a learning pathway on sequences and series, the materials prompt them to apply their understanding of these

functions to derive and use formulas for the sum of a finite geometric series. This reinforces connections between function types and sequence behavior.

Students revisit rational expressions and domain concepts introduced earlier in the course in the *Coursework Teacher Edition,* Unit 11, Rewriting Rational Expressions. As students work through lessons on rewriting rational expressions and verifying polynomial identities, they apply previously acquired skills in new contexts. These interleaved opportunities are also supported by resources, such as the *Independent Skills Practice Book* and *TEKS Correlation Guide with Breakouts*.

5. Balance of Conceptual and Procedural Understanding

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

5.1 Development of Conceptual Understanding

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

5.1a – Questions and tasks provide opportunities for students to interpret, analyze, and evaluate mathematical concepts and complex, real-world situations.

The MN+ Algebra II materials provide students with opportunities to interpret mathematical concepts through real-world contexts and visual representations. In *Coursework Student Edition,* Unit 5, Lesson 3, students interpret key features of exponential functions that model real-world data, such as the unemployment rate in Florida. Students identify and describe domain, range, intercepts, and intervals of increase or decrease, and relate these features to the context. In Unit 8 Lesson 4, students interpret square root and cube root functions in applied scenarios, making sense of how mathematical models represent real-world behavior. These tasks require students to understand and explain the meaning of mathematical representations within context, supporting the development of interpretive skills.

Students also have multiple opportunities to analyze mathematical relationships and structures. In Unit 3, Square Root and Cube Root Functions, students progress from writing square root functions to graphing and analyzing their behavior, including transformations and constraints. In Unit 13, Lesson 4, students analyze systems involving linear and quadratic functions by determining the number and nature of solutions using graphical representations. Students verify solutions algebraically and compare results through peer discussion, promoting analytical reasoning. These tasks require students to examine how mathematical components interact and to draw conclusions based on structure and representation.

The materials further support students in evaluating mathematical concepts and solutions within authentic scenarios. In *Coursework Student Edition,* Unit 5, Lesson 3, students predict future trends based on exponential models and assess the reasonableness of those predictions using real-world data, such as unemployment rates. In Unit 13, Lesson 4, students analyze population trends and model the intersection of a rocket's trajectory with a laser beam. In Unit 16, Lesson 7, students apply probability concepts to real-world contexts using combinations and permutations. In the *Independent Skills Practice Book*, students solve real-world problems involving exponential and logarithmic functions, such as determining how long it takes for a savings account to reach a target value. These tasks require interpretation of quantities, application of reasoning, and evaluation of solutions in context.

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

The materials provide students with opportunities to create concrete models of mathematical situations. In *Coursework Student Edition,* Unit 6, Lesson 1, students develop area models for quadratic equations, then compare them to traditional factoring methods to analyze the relationship between the *b* and *c* terms. In Unit 7, Lesson 12, students graph quadratic functions and discuss the constraints of their models, fostering a deeper understanding of the relationships involved. In the *Independent Skills Practice Book*, students construct mathematical models to represent real-world scenarios, such as modeling bacterial growth with exponential functions or estimating reading progress using linear functions. These tasks require students to create equations and complete tables, reinforcing conceptual understanding through modeling.

Students are also given multiple opportunities to create and interpret concrete representations of mathematical ideas. In *Coursework Student Edition,* Unit 1, Lesson 8, students graph piecewise functions to visualize distinct segments and determine solutions from the graph. In Unit 12, Lesson 3, students explore the effects of transformations by drawing graphs that apply changes to a previously presented function, encouraging hands-on engagement with graphical representations. In Unit 12, Lesson 5, a collaborative activity uses a matching game to connect points with different graphs, strengthening students' ability to interpret and represent functions concretely.

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

The materials provide opportunities for students to apply conceptual understanding to new mathematical problems and contexts. In *Coursework Student Edition,* Unit 3, Lesson 7, students demonstrate an extended understanding of square root and cube root functions through collaborative activities that engage them in applying these concepts in new scenarios. In Unit 9, Lesson 6, students practice writing equations of functions, applying their knowledge to different problem contexts.

Materials give students multiple opportunities to transfer their understanding to unfamiliar or real-world situations. In *Coursework Student Edition,* Unit 2, Lesson 8, students analyze real-world data—such as social media growth and population trends—by interpreting models, converting growth rates, and applying exponent rules. In Unit 14, Lesson 7, students model periodic phenomena like amusement park rides using trigonometric functions, connecting angle measures to motion and graphing paths. In the *Independent Skills Practice Book*, students apply exponential and logarithmic reasoning to financial contexts, such as calculating how long it takes for savings to reach a target value, requiring interpretation and verification of solutions. These tasks support the development of conceptual skills in new problem situations.

5.2 Development of Fluency

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

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

The MN+ Algebra II materials provide opportunities for students to practice the application of efficient, flexible, and accurate mathematical procedures throughout learning pathways. In *Coursework Student Edition,* Unit 2, Lesson 3, students revisit the laws of exponents to write equivalent expressions using rational exponents. Through repeated application of exponent rules in both collaborative and independent tasks, students build efficiency in recognizing and applying these procedures quickly. In *Coursework Student Edition,* Unit 12, Lesson 2, students apply transformation rules to analyze changes in graphs, reinforcing accuracy in identifying how specific transformations affect graphical representations.

Additional support for procedural fluency is evident in *Coursework Teacher Edition,* Unit 2, Lesson 1, where students complete a table to describe exponent laws and apply them to various expressions. This task promotes flexibility by enabling students to choose and apply the appropriate rule in multiple contexts. In *Coursework Teacher Edition,* Unit 8, Lesson 2, students simplify and combine radical expressions, rationalize denominators, and work with absolute values. The lesson's riddle format encourages efficient and accurate problem-solving by requiring students to solve multiple expressions quickly and correctly to uncover a hidden message. The "Course Overview" in the *Coursework Teacher Edition* further supports fluency by aligning standards across multiple lessons and identifying which lessons emphasize procedural fluency, such as those in Unit 6, Quadratic Relationships—Part 1. This alignment ensures students revisit and refine procedures across contexts, reinforcing accuracy and automaticity.

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

The materials provide consistent opportunities for students to apply efficient mathematical procedures across multiple units and contexts. In *Coursework Student Edition,* Unit 7, Quadratic Relationships—Part 2, students solve quadratic functions using completing the square or the quadratic formula, including cases with imaginary solutions. These tasks support efficiency by allowing students to select and apply appropriate methods. In *Coursework Teacher Edition,* Unit 6, Lessons 1–4 introduce factoring strategies such as area models, grouping, and special product formulas. The *Independent Skills Practice Book*

reinforces efficiency by guiding students to rewrite expressions in different forms and choose appropriate methods based on structure.

Students are encouraged to apply flexible mathematical procedures by exploring and justifying multiple strategies. In *Coursework Student Edition,* Unit 2, Equivalent Numerical Expressions, students convert between radical and exponential forms to evaluate expressions and determine percent rates of change. In Unit 6, Lessons 5–8, students work with standard, factored, and vertex forms of quadratic expressions depending on the task. The *Independent Skills Practice Book* supports flexibility by prompting students to rewrite expressions using different formats and correct errors in student work.

The materials emphasize precision in both reasoning and execution to support procedural accuracy. In Unit 2, Equivalent Numerical Expressions, students repeatedly evaluate and rewrite expressions, reinforcing accurate use of exponent laws and radical rules. In Unit 6, Lessons 6 and 9 guide students through completing the square and analyzing parabolas. Lesson 3 reinforces accuracy by teaching students to verify factored results. The *Independent Skills Practice Book* emphasizes accuracy by asking students to identify and correct errors in factoring and confirm whether expressions are completely simplified.

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

The materials provide opportunities for students to evaluate mathematical representations, models, strategies, and solutions in terms of efficiency, flexibility, and accuracy throughout their learning pathways. In the *Coursework Student Edition,* Unit 6, students explore multiple methods for factoring quadratics, including difference of squares, area models, grouping, and the sum or difference of cubes. Students also rewrite quadratic expressions using factoring and completing the square. These varied approaches allow students to determine the most efficient and accurate strategies for identifying key features of quadratic functions. In the *Coursework Student Edition,* Unit 7, Quadratic Relationships—Part 2, students solve quadratic equations involving imaginary and complex numbers using either completing the square or the quadratic formula. This task supports flexibility by allowing students to choose the most appropriate method based on the structure of the equation.

Additional support for evaluating strategies is available in the *Coursework Teacher Edition,* specifically in Unit 13, Systems of Equations, where students learn to solve systems of equations using graphing, substitution, and elimination methods. In Lessons 2, 3, and 5, students compare these methods to determine which is most efficient for a given system. Lessons 3–5 emphasize flexibility as students shift between graphical and algebraic representations, including solving systems involving both linear and nonlinear equations. Accuracy is reinforced through verification of solutions and interpretation of intersections, encouraging students to confirm their answers using both estimation and exact methods.

In addition, *Coursework Student Edition,* Unit 2, Lesson 3 provides a model for writing equivalent expressions with rational exponents. Students then apply the model to generate their own examples, supporting accuracy and flexibility. In Unit 3, Lesson 5, students complete a table, identify the domain and range, and graph a quadratic function, providing a comprehensive opportunity to evaluate mathematical models and strategies across multiple representations.

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

The materials contain guidance to support students in selecting the most efficient approaches when solving mathematics problems. In the *Coursework Teacher Edition,* Unit 7, Lesson 6, students solve quadratic functions using multiple methods and are then prompted to reflect on which method they preferred, and why. This reflection encourages students to evaluate the efficiency of different strategies and make informed decisions about which approach is most appropriate for a given problem. Similarly, *Coursework Teacher Edition,* Unit 12, Lesson 7, asks students to represent a transformation using a table, graph, or equation. This task supports strategic thinking by allowing students to choose the most efficient representation based on the context of the problem.

Additional support is provided in the *Coursework Teacher Edition,* Unit 4, Lesson 6, which guides students to choose the most appropriate quadratic form—standard, vertex, or factored—based on the features of a real-world problem. This task helps students develop the habit of selecting the most direct and efficient modeling strategy. In Unit 9, Lesson 4, students distinguish between linear, exponential, arithmetic, and geometric models by analyzing real-world scenarios. Students are prompted to identify key patterns and select the most suitable model, reinforcing their ability to choose efficient approaches based on context.

Embedded supports also guide students toward efficient strategies. In *Coursework Teacher Edition,* Unit 6, Lesson 1, the "Teacher Prep Video" models how to factor quadratic functions by identifying the greatest common factor, helping students streamline their approach. In Unit 7, Lesson 1, the Guiding Activity supports students in solving quadratic equations efficiently by scaffolding their problem-solving process.

5.3 Balance of Conceptual Understanding and Procedural Fluency

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

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

The MN+ Algebra II materials explicitly address the conceptual emphasis of the TEKS by guiding students to understand mathematical relationships through real-world applications that require interpretation and analysis. In the *Coursework Student Edition,* Unit 10, Lesson 7, students explore the concentration of medicine in the bloodstream and find and interpret the zeros of a function, aligning with TEKS A.2.7D and A.2.7E. Similarly, in Unit 5, Lesson 10, students examine exponential growth and decay in population models, determining population levels and evaluating the validity of their results, which supports the conceptual development of TEKS A.2.5D and A.2.5E.

The TEKS' procedural emphasis is supported by structured opportunities for students to practice and apply skills, such as solving quadratic equations by factoring. In the *Coursework Teacher Edition,* Unit 7, Lesson 9, students follow a step-by-step process to identify standard form, factor expressions, and solve for zeros. Repeated practice across varied examples, along with clear expectations for showing work, supports procedural fluency and aligns with TEKS A.2.4F.

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

The materials include questions and tasks that prompt students to use concrete models, such as building physical representations, to explore mathematical concepts. In the *Coursework Student Edition,* Unit 10, Lesson 7, students begin by constructing a cardboard box and calculating its volume. This hands-on activity supports TEKS A.2.7D and A2.7E by grounding abstract polynomial concepts in a tangible, real-world context.

Opportunities are provided to support the use of pictorial representations by including tasks that require students to draw or interpret visuals, such as graphs and tables. In Unit 10, Lesson 7, students analyze volume functions using graphical models and interpret key features, such as maximum volume and zeros. These visual tasks help bridge the connection between symbolic reasoning and real-world applications.

Students are provided opportunities to engage with abstract models by solving problems using algebraic and graphical methods. In *Coursework Student Edition,* Unit 13, Lesson 4, students solve systems of equations involving linear and quadratic functions by graphing and interpreting solutions in context. Students verify solutions algebraically and assess their reasonableness in real-world scenarios, aligning with TEKS A.2.3C and A.2.6A.

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

The materials support students in connecting concrete or visual models to abstract concepts by guiding them through real-world applications that begin with tangible or visual experiences and lead to symbolic reasoning. In the *Coursework Student Edition*, Unit 7, Lesson 8, students are presented with a scenario in which a landscape designer is building a garden using 180 feet of fencing, with one side of the garden placed along an existing fence. Students use a quadratic equation to model the area of the garden based on its width and are asked to find and interpret the zeros of the function. This task connects a physical, real-world situation to an abstract mathematical concept, supporting TEKS A.2.4F.

Students are provided with opportunities to create models that represent mathematical ideas, such as polynomial expressions, using area models. In the *Coursework Teacher Edition,* Unit 6, Lesson 2, students build area models to represent polynomial expressions with varying degrees. Students then use these models to explore patterns and relationships, which helps them transition from visual representations to symbolic factorization. This use supports TEKS A.2.7E by reinforcing structural understanding of algebraic expressions.

Guidance is embedded to help students define the purpose and structure of the models they use by prompting them to reflect on their problem-solving strategies. In Unit 6, Lesson 2, students analyze incorrect examples and explain their reasoning, which helps clarify the role of each component in the model and strengthens their conceptual understanding.

Tasks prompt students to explain how their models represent mathematical thinking by asking them to interpret and evaluate solutions in context. In the *Coursework Student Edition,* Unit 13, Lesson 4, students examine systems of equations that involve both linear and nonlinear functions. Students use graphs to determine the number of solutions and assess whether those solutions make sense in real-world scenarios, supporting TEKS A.2.3C and A.2.3D.

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.

The MN+ Algebra II materials support the development of academic mathematical language through the use of visuals, including graphs, tables, and equations that represent linear, quadratic, and exponential functions. In *Coursework Student Edition,* Unit 1, Lesson 1, students engage in a collaborative matching activity that connects multiple representations of functions. This activity supports the identification of key features such as increasing and decreasing intervals and constant rates of change. In Unit 1, Lesson 3, students analyze visual representations to determine function types and describe characteristics, including domain, range, intercepts, and end behavior.

Students are given opportunities to build academic mathematical language using manipulatives, including physical models and visual tools. In *Coursework Student Edition,* Unit 6, Lesson 4, students use visual cubes to construct a model of the difference of cubes, reinforcing algebraic vocabulary through hands-on representation. In Unit 10, Lesson 7, students factor polynomials in real-world contexts such as designing a box or modeling medication concentration. Students use manipulatives and graphs to explore concepts, including volume, zeros, and factors. In the *Independent Skills Practice Book*, students use algebra tiles to factor trinomials, arranging tiles into rectangles to visualize area models and identify factor pairs, supporting the development of precise mathematical language through concrete modeling.

The materials incorporate language development strategies, including structured peer discussions and guided prompts, to promote academic mathematical language. In *Coursework Student Edition,* Unit 6, Lesson 8, students participate in pair-sharing activities that support the use of academic vocabulary in mathematical conversations. In *Coursework Teacher Edition,* Unit 10, Lesson 8, students interpret polynomial behavior through verbal explanations and collaborative reasoning, including identifying when volume is zero and explaining the implications of negative solutions.

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

The materials include embedded educator guidance to scaffold students' use of academic mathematical vocabulary in context, including prompts and modeling that support vocabulary development during instruction. In *Coursework Teacher Edition,* Unit 5, Lesson 4, the lesson begins with a real-world problem involving motorcycle braking distance. Educator guidance supports the use of Desmos to interpret graphs and identify domain and range values, with vocabulary such as *input* and *output* explicitly modeled. In Unit 7, Lesson 8, the teacher guides students through a contextual problem involving ticket pricing and attendance, prompting discussion of the meaning of zeros and inputs in a quadratic function. In the *Independent Skills Practice Book*, students match quadratic expressions to their graphs and identify key features such as vertex, axis of symmetry, and zeros, reinforcing vocabulary through repeated application in varied contexts.

Educator supports are embedded within the materials to help students use academic mathematical vocabulary when interacting with peers and teachers, including structured collaborative activities and guided discussions. In *Coursework Teacher Edition,* Unit 8, Lesson 5, students engage in partner discussions to describe rational function behavior using terms such as *domain, range,* and *asymptote*. Educator prompts guide students to define and apply vocabulary in context. In Unit 6, Lesson 8, the student edition includes collaborative activities that model peer-to-peer sharing of mathematical vocabulary, reinforcing terminology through structured interaction.

To extend students' use of academic mathematical vocabulary in meaningful contexts, the materials provide embedded guidance for educators, including prompts that support generalization and application of terms. In *Coursework Teacher Edition,* Unit 8, Lesson 4, students analyze rational functions and make generalizations about horizontal asymptotes based on the degrees of the numerator and denominator. Educator questions are embedded to guide students in applying vocabulary such as intercepts and undefined values. In Unit 8, Lesson 5, students continue to extend their use of academic language through reasoning tasks that require justification and reflection using precise terminology.

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

Materials include embedded guidance to support student application of appropriate mathematical language, including structured opportunities for students to use academic vocabulary in context. In *Coursework Teacher Edition,* Unit 10, Lesson 7, students construct a box and analyze how cut sizes affect volume, using terms like *solutions* and *zeros* to explain input validity. Guided activities prompt interpretation of zeros in real-world contexts. In the *Independent Skills Practice Book*, students reinforce vocabulary such as *roots* and *intercepts* by completing written explanations of quadratic solutions.

To support the use of academic vocabulary in discourse, the materials provide embedded guidance that helps students communicate mathematical ideas clearly, including prompts for peer discussion and reflection. In *Coursework Teacher Edition,* Unit 8, Lesson 5, students participate in partner discussions to justify reasoning using terms such as *domain, range, intercepts,* and *asymptote*. The lesson includes reflection prompts that encourage students to assess their understanding and revise their use of mathematical language. In Unit 8, Lesson 6, students hypothesize the locations of asymptotes and compare their predictions to actual graphs, using discourse to clarify misconceptions and refine vocabulary related to discontinuities and undefined values.

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

Materials include embedded guidance to facilitate mathematical conversations that allow students to hear math language used by their peers, including structured partner discussions and collaborative tasks. In *Coursework Student Edition,* Unit 13, Lesson 2, students analyze a real-world system of equations and discuss with a partner how to identify and solve the system using graphing and algebraic methods. In Unit 13, Lesson 4, students work in pairs to determine the number of solutions to given systems and evaluate the validity of proposed solutions, using mathematical language to justify their reasoning and compare interpretations.

To help students refine their mathematical language, the materials provide embedded guidance that supports peer-to-peer dialogue and feedback, including prompts that encourage students to articulate and revise their thinking. In *Coursework Teacher Edition,* Unit 12, Lesson 2, students investigate transformations and describe the effects of shifts, stretches, and reflections using terms such as *translate, compress,* and *reflect.* In Unit 12, Lesson 3, students summarize partner discussions and complete statements that explain how function notation affects graphs and tables, reinforcing vocabulary through structured justification and reflection.

Students are supported in using mathematical language during conversations with peers through embedded guidance in the materials, including collaborative activities that model academic discourse. In *Coursework Student Edition,* Unit 6, Lesson 1, students engage in peer conversations during a collaborative task that emphasizes the use of precise mathematical vocabulary. These activities provide consistent opportunities for students to hear, refine, and apply academic language in context.

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.

Materials include embedded guidance to anticipate a variety of student responses, allowing educators to prepare for diverse ways students may approach questions and tasks, including open-ended prompts and structured opportunities for revision. In *Coursework Teacher Edition,* Unit 7, Lesson 8, students

analyze a real-world quadratic scenario involving ticket pricing and attendance. The collaborative activity prompts students to interpret solutions in context and revise their thinking after peer discussion. Educators are guided to prompt justification and support students in refining their interpretations. In Unit 14, Lesson 6, students respond to questions that are designed to elicit a range of valid responses: "Why does cosine model Kai's position?" Summary boxes and "answers may vary" notes help educators anticipate diverse reasoning paths.

Embedded guidance in the materials helps educators support or redirect inaccurate student responses by offering suggestions for feedback and instructional moves, including prompts that reveal misconceptions and encourage reasoning. In *Coursework Teacher Edition,* Unit 7, Lesson 8, the lesson structure allows teachers to determine whether additional guided practice is needed based on student responses. In Unit 14, Lesson 7, tasks are designed to reveal common misunderstandings, such as misinterpreting zero values in trigonometric functions. Educators are prompted to ask clarifying questions and provide feedback during partner and group discussions.

To support instructional clarity, the materials provide exemplar responses that illustrate accurate and complete ways students might respond to tasks, including modeled interpretations and structured comparisons. In *Coursework Teacher Edition,* Unit 4, Lesson 8, the materials include sample responses to guide instruction and clarify expectations for student work. In Unit 14, Lesson 7, exemplar responses are embedded in tables and scenario-based tasks, helping educators model precise reasoning and vocabulary.

5.5 Process Standards Connection

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

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

The MN+ Algebra II materials demonstrate appropriate integration of TEKS process standards by embedding them within tasks and instructional routines across all units. In *Coursework Teacher Edition*, Unit 1, Lessons 4 and 6, students describe transformations using graphs and tables. They graph absolute value functions while identifying key features, reinforcing understanding through symbolic, graphical, and verbal representations (TEKS A.2.1F, A.2.1G). In Unit 7, Lesson 8, students interpret the meaning of zeros in a quadratic function within a real-world context, analyzing how each part of the equation affects the graph (TEKS A.2.1A, A.2.1B, A.2.1D, A.2.1G). In Unit 14, Lesson 7, students apply trigonometric ratios and coordinate geometry to model circular motion, using visual models, equations, and verbal reasoning to explain their thinking (TEKS A.2.1A, A.2.1B, A.2.1D, A.2.1F, A.2.1G). These tasks promote problem solving, communication, and the use of multiple representations in meaningful contexts (TEKS A.2.1A, A.2.1B, A.2.1E, A.2.1F).

Lessons throughout the course consistently identify the TEKS process standards addressed, making their integration visible and intentional. For example, in *Coursework Teacher Edition,* Unit 5, Lesson 3, students interpret key features of exponential functions in context, applying mathematics to real-world problems and communicating their reasoning through graphs and verbal explanations (TEKS A.2.1A, A.2.1C, A.2.1D). In Unit 9, Lesson 2, students write constraints for mathematical models, using precise language and multiple representations to describe relationships (TEKS A.2.1A, A.2.1B, A.2.1F, A.2.1G). In Unit 12, Lesson 5, students explore transformations using multiple representations, including graphs, equations, and verbal descriptions, to deepen conceptual understanding (TEKS A.2.1D, A.2.1F, A.2.1G). The "TEKS and ELPS by Lesson" document provides consistent, lesson-level documentation of these standards, ensuring that the process standards are not only embedded in instruction but also clearly traceable for educators and reviewers (TEKS A.2.1A, A.2.1B, A.2.1D, A.2.1F, A.2.1G).

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

Materials include a description of how process standards are incorporated into instruction, showing how they are embedded within tasks and learning experiences, such as lessons that connect mathematical reasoning to real-world contexts and multiple representations. In *Coursework Teacher Edition*, Unit 6, Lessons 1–5, the learning pathway on quadratic relationships engages students in factoring strategies,

connecting algebraic forms to contextual interpretations, and applying concepts to real-world problems. Lessons introduce various factoring strategies, including area models, grouping, GCF, and special product formulas. Lessons prompt students to identify patterns and connect these structures to contextual interpretations such as intercepts or volume models. These activities reflect expectations such as applying mathematics to real-world problems (TEKS A.2.1A), justifying and generalizing methods (TEKS A.2.1B and A.2.1G), developing procedural fluency (TEKS A.2.1C), using multiple representations (TEKS A.2.1D), and analyzing mathematical relationships (TEKS A.2.1F).

A description of how process standards are connected throughout the learning pathways is provided in the materials, illustrating their alignment across lessons and units, such as the consistent emphasis on applying mathematics to real-world scenarios and using multiple representations to communicate reasoning. In *Coursework Teacher Edition,* Unit 7, Lesson 12, instructional video guidance reinforces the use of multiple solution strategies, including factoring, completing the square, and using the quadratic formula, demonstrating how students are expected to select and justify methods across different contexts. These connections across units illustrate how the process standards are not isolated, but intentionally woven throughout the curriculum to support coherent mathematical development.

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

Materials include an overview of the TEKS process standards incorporated into each lesson, providing educators with clear insight into how these standards are addressed throughout instruction, such as in the *Coursework Teacher Edition*'s "TEKS and ELPS by Lesson" and the *TEKS Correlation Guide with Breakouts*. These resources list the specific TEKS process standards aligned to each unit and lesson, allowing educators to see how skills like problem-solving, representation, communication, and application to real-world contexts are embedded across the curriculum. For example, TEKS A.2.1E is linked to lessons involving collaborative activities that require students to create and use representations, while TEKS A.2.1A is connected to lessons focused on solving systems of equations in real-world contexts. This structured mapping supports intentional planning and ensures that process standards are not only present but meaningfully integrated throughout instruction.

6. Productive Struggle

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

6.1 Student Self-Efficacy

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

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

The MN+ Algebra II materials provide meaningful opportunities for students to think mathematically through tasks that emphasize structure, representation, and reasoning. In *Coursework Student Edition,* Unit 6, Lesson 1, students factor quadratics using area models, identifying patterns and relationships between terms. In Unit 8, Lesson 4, students model hang time using square root functions and analyze domain, range, and key features. In Unit 12, Lesson 2, students classify functions as even, odd, or neither using graphs, tables, and equations, and justify their conclusions using function notation and algebraic rules. In the *Independent Skills Practice Book*, students solve exponential decay problems using tables and graphs to represent functions and explain their reasoning. These tasks promote mathematical thinking across multiple representations.

Students are encouraged to persevere in problem-solving as they engage with activities that involve multi-step reasoning and strategic analysis. In *Coursework Student Edition,* Unit 6, Lesson 8, students analyze sun altitude data and determine which quadratic features are meaningful in context, supported by side-margin tips that scaffold productive struggle. In Unit 8, Lesson 4, students solve contextual problems involving nonlinear functions, such as determining the number of clay spheres that can be made from a fixed volume. These tasks require sustained analysis and iterative reasoning. In Unit 12, Lesson 2, students test symmetry rules, revisit earlier steps, and justify their conclusions across representations, reinforcing persistence through layered tasks.

To support students in making sense of mathematics, the materials include structures and supports that connect abstract concepts to meaningful contexts. In *Coursework Student Edition,* Unit 6, Lesson 8, students interpret solutions in real-world scenarios and justify their choice of function form, with embedded supports guiding them to assess reasonableness. In Unit 8, Lesson 4, students interpret function features in physical and artistic contexts, such as jump height and sculpture design, reinforcing the relevance of mathematics. In Unit 12, Lesson 2, students explore symmetry through visual, numerical, and algebraic forms, helping them see mathematics as a coherent and interconnected system.

6.1b – 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 that there are multiple valid ways to solve problems and complete tasks by introducing and applying a variety of strategies across lessons. For example, in *Coursework Student Edition*, Unit 6, Lesson 8, students rewrite a quadratic function from standard form into both vertex and factored forms, then use each form to identify and interpret key features in context. This task reinforces the idea that different representations can offer distinct insights while leading to the same solution. In Unit 8, Lesson 9 , students justify solutions to radical and rational problems, illustrating that multiple solution paths can be valid and effective. In Unit 7, Lesson 11 students explore different methods for solving quadratic equations, further supporting the development of flexible problem-solving skills.

Students are encouraged to explain and justify their thinking as they explore different methods for solving problems and completing tasks through structured prompts and collaborative activities. For example, *Coursework Student Edition,* Unit 6, Lesson 8, asks students to explain their reasoning when identifying equivalent forms of a quadratic function and interpreting their meaning. In Unit 8, Lesson 9, students engage in a collaborative activity that highlights multiple solution strategies, encouraging them to articulate their reasoning and compare approaches. The *Independent Skills Practice Book* prompts students to justify their choice of factoring method when solving quadratic equations, supporting the development of reasoning through written explanations.

To help students recognize the value of diverse approaches, the materials provide opportunities to compare and reflect on multiple ways to solve problems and complete tasks by explicitly teaching strategies such as factoring, completing the square, and using the quadratic formula. The *Coursework Student Edition,* Unit 9, Lesson 4, prompts students to reflect on why a particular method was chosen and whether it was the most efficient for the problem at hand. These reflections appear in written responses, partner discussions, and teacher-facilitated conversations, fostering a classroom culture that values reasoning and strategic thinking alongside accuracy.

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

The materials provide students with frequent opportunities to actively engage in doing mathematics by solving problems collaboratively and applying concepts in meaningful contexts. In *Coursework Student Edition,* Unit 6, Lesson 8, students work with peers to rewrite quadratic functions in vertex and factored forms and interpret their meaning in context. In Unit 7, Lesson 11, students solve quadratic equations using different methods and discuss their choices with partners, reinforcing peer learning. In Unit 13, Lesson 4, students graph systems of equations and classify solutions while working in pairs. In the *Independent Skills Practice Book*, students apply concepts by modeling exponential growth scenarios and

explaining their reasoning in written responses, promoting active engagement through real-world problem solving.

To support students in making sense of their learning, the materials include structured opportunities for students to write about mathematics by prompting them to explain and justify their reasoning in context. For example, in *Coursework Student Edition,* Unit 6, Lesson 8, students write about whether x-intercepts make sense in a given scenario, supporting written reasoning and reflection. In Unit 13, Lesson 3, students justify whether a point is a solution to a system, explain the number of solutions, and summarize their conclusions in writing. These tasks help students clarify their thinking and communicate mathematical ideas effectively.

Students are encouraged to deepen their understanding through peer and teacher discussions facilitated by materials that prompt comparison of strategies and collaborative analysis. For example, in *Coursework Student Edition,* Unit 6, Lesson 8, students discuss equivalent forms of quadratic functions and their contextual interpretations with peers. In Unit 13, Lesson 4, structured discussion prompts guide students to compare answers, explain discrepancies, and refine their understanding through dialogue with partners and educators. These discussions foster a classroom culture of shared reasoning and mathematical discourse.

6.2 Facilitating Productive Struggle

GUIDANCE	SCORE SUMMARY	RAW SCORE
6.2a	All criteria for guidance met.	8/8
6.2b	All criteria for guidance met.	4/4
—	**TOTAL**	12/12

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

The MN+ Algebra II materials support educators in guiding students to share their problem-solving approaches, including explanations and arguments, by providing opportunities and guidance that promote collaborative reasoning and strategic flexibility. In *Coursework Teacher Edition,* Unit 7, Lesson 10, students solve quadratic equations using multiple methods and justify their choices; in Unit 8, Lesson 4, collaborative stations support modeling with square root and cube root functions, with guidance for sharing interpretations and comparing reasoning.

The materials offer guidance that supports structured reflection, peer comparison, and teacher-facilitated feedback to help students reflect on and justify their thinking, including the explanations and arguments behind their chosen strategies. For example, in *Coursework Teacher Edition,* Unit 7, Lesson 11, students connect algebraic and graphical representations through discussion and writing, while Unit 13, Lesson 5, includes an error analysis task where students evaluate and correct a peer's solution.

Educators are supported with guidance that emphasizes multiple points of entry into problem solving and encourages students to articulate their reasoning through explanations, arguments, and justifications by offering varied strategies and structured opportunities for comparison. For example, in *Coursework Teacher Edition,* Unit 7, Lesson 7, collaborative activities prompt students to solve problems using different methods and reflect on their reasoning; in Unit 13, Lesson 5, students explore systems of equations in multiple forms and justify their preferred solution method.

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

The materials include guidance to help educators provide explanatory feedback that responds directly to student thinking and supports the development of mathematical reasoning. In *Coursework Teacher Edition,* Unit 7, Lesson 10 guides students to compare quadratic solution methods and reasoning errors, while Unit 8, Lesson 4 outlines collaborative stations using root functions, with guidance for interpreting and responding to student thinking.

To support meaningful feedback, the materials offer prompts and guidance that help educators interpret and respond to a range of student responses by anticipating common errors and providing strategies for addressing them. For example, in *Coursework Teacher Edition,* Unit 5, Lesson 7, structured supports help address misconceptions about logarithmic properties, and in Unit 7, Lesson 11, partner discussions allow teachers to respond to diverse reasoning paths with targeted feedback.

Educators are supported in identifying and addressing anticipated misconceptions through materials that include guidance and feedback strategies, such as collaborative reflection, structured comparison tasks, and embedded prompts. For example, in Unit 7, Lesson 7, students reflect on multiple solution methods with teacher prompts to address misunderstandings, and in Unit 13, Lesson 5, peer error analysis is used to guide clarification and correction through discussion.