Accelerate Learning Inc.

Supplemental English Mathematics, Geometry
Math Nation+ Texas–Geometry

MATERIAL TYPE	ISBN	FORMAT	ADAPTIVE/STATIC
Supplemental	**9798330805037**	**Both Print and Digital**	**Static**

Rating Overview

TEKS SCORE	TEKS BREAKOUTS ATTEMPTED	ERROR CORRECTIONS (IMRA Reviewers)	SUITABILITY NONCOMPLIANCE	SUITABILITY EXCELLENCE	PUBLIC FEEDBACK (COUNT)
100%	79	0	Flags Not in Report	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	0	0	0
6. Promoting Sexual Risk Avoidance	0	0	0
7. Compliance with the Children's Internet Protection Act (CIPA)	0	0	0

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

IMRA Quality Report

1. Intentional Instructional Design

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

1.1 Course-Level Design

GUIDANCE	SCORE SUMMARY	RAW SCORE
1.1a	All criteria for guidance met.	5/5
1.1b	All criteria for guidance met.	3/3
1.1c	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+) Geometry 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 includes the "TEKS and ELPS by Lesson" document, which provides a detailed mapping of Geometry 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 in which each standard is addressed, 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 grade 8 and identifies extensions into Algebra II, such as the progression from using the Pythagorean theorem in grade 8 to applying trigonometric ratios in Geometry, Unit 9, and extending to Algebra II, Unit 14 for circular functions. 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 G.3C is addressed in Units 1, 5, and 7, and G.5A appears in multiple lessons across Units 2, 4, and 13, 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. These resources collectively 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+ 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+ Geometry 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 5, Lesson 5, Algebraic Descriptions of a Sequence of Transformations, 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 5, Lesson 5 addresses TEKS G.3A and G.3B and ELPS 3.E and 4.F.

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, Rigid Motions, 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 that explain how to use the materials at home. These resources are accessible in the digital *Coursework Student Edition* under the "Getting Started" section, and teachers can print them for distribution to students.

Teachers can access these supports in the *Coursework Teacher Edition*, "Course Overview," Unit 0, under "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 interactive item type.	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+ Geometry materials include clearly defined types of instructional assessments and their intended purposes, as outlined in the *Coursework Teacher Edition,* "Course Overview," "Progress Monitoring" tab. This 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, Check Your Understanding tasks appear at the end of each lesson and are designed to help educators assess how well students grasp key concepts.

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 4, Lines and Angles, students complete a Check Your Understanding in Lesson 3 and a Test Yourself! assessment at the end of the unit. Similarly, in Unit 8, Similarity, a Test Yourself! practice tool is included to assess cumulative understanding of the unit's content.

"Progress Monitoring" tools enable the seamless integration of both formative and summative assessments into instruction. This structure supports the rubric expectation that "materials include the definition and intended purpose for the types of instructional assessments." The consistent design across units ensures that assessment is used purposefully to support both teaching and learning.

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. A suggested timeline for administering these assessments is provided in the "Flexible Implementation Options" section, supporting consistent pacing and instructional planning across classrooms.

To ensure accurate administration, the materials include detailed descriptions of assessment types and formats in the "Progress Monitoring" section. These tools are designed to 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, outlines standardized procedures to ensure all students receive consistent instructions and testing environments, and provides teachers with access to 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 specific TEKS.

My Pathway presents students with questions exclusively in a multiple-choice format. 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.

The materials include a variety of formative assessments that align 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.

In Unit 4, Lines and Angles, students engage with formative assessments in lessons such as Using Angle Relationships, Postulates, and Theorems and Solving Problems Using Angle Pair Relationships, aligned to TEKS G.6A. These include tasks that require identifying types of angle pairs, calculating angle measures, and applying concepts to real-world contexts. Item types include multiple-choice, text-entry, and graphing, offering multiple ways for students to demonstrate their understanding.

The materials provide opportunities for students to engage with content through varied item types and cognitive demands. This structure ensures that formative assessments are not only aligned to the TEKS but also designed to support diverse learning styles and levels of understanding through interactive and progressively complex tasks. For example, in Unit 8, Lesson 1, the Check Your Understanding (TEKS G.7B), and the Test Yourself! assessment at the end of the unit both include varied item types and cognitive demands (TEKS G.7A, G.7B, G.8A).

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+ Geometry 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" feature. 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, and 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+ Geometry 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. In the *Coursework Teacher Edition* videos, guide educators to assess student readiness, address learning gaps, and adapt instruction to meet diverse learning needs. For example, the Unit 7, Non-Rigid Motions, video explains how to teach dilations using scale factors, while the Unit 9, Right Triangles, video demonstrates how to find missing sides of triangles using the Pythagorean theorem.

Additionally, the materials include embedded reteaching opportunities that reinforce foundational concepts. In the *Coursework Student Edition,* Unit 11, Lesson 1, students engage in conceptual modeling by manipulating circle sectors to derive the formulas for circumference and area visually. Through guided activities, students observe how rearranging sectors into a rectangle-like shape approximates the area of a circle, and how arc lengths relate to the circle's diameter and circumference. This hands-on modeling approach supports deeper understanding by connecting geometric intuition with algebraic reasoning, supporting conceptual understanding, and ensuring accessibility for all learners.

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. *Coursework Student Edition*, Unit 1, Lesson 3, presents vocabulary terms in light blue

rectangular boxes, each accompanied by a video link that defines and applies the term in context. In Unit 4, Lesson 1, collaborative activities provide written definitions and instructional videos to support understanding of terms related to lines and angles. Additionally, Unit 11, Lesson 1, reinforces vocabulary through visuals and 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 rigid transformations 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. Additionally, the *Coursework Teacher Edition* outlines opportunities to extend learning within and across courses. For example, the Learning Pathway graphic supports enrichment. It guides students who have demonstrated proficiency in Geometry topics such as Unit 5, Rigid Motions, and Unit 7, Non-Rigid Motions (TEKS G.5A and TEKS G.7A) toward more advanced mathematical concepts. These concepts include modules like A2.16 Sequences and Series and A2.14 Exponential Relationships, which are foundational for precalculus (TEKS P.4A and TEKS P.6A). In Unit 2, Lesson 7, the materials include an extension activity related to tessellations, providing students with an opportunity to explore geometric concepts beyond the core lesson objectives. This structured approach to enrichment ensures that students who are ready for more advanced content have meaningful and supported opportunities to deepen their learning.

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. In the *Coursework Student Edition,* Unit 1, Lesson 1, students use physical tools, such as rulers and tracing paper, to explore and demonstrate geometric principles, including right angles and perpendicular lines. These manipulatives allow students to actively engage with the content and physically perform the steps needed to construct and verify geometric relationships. Similarly, in Unit 4, Lesson 1, students participate in a collaborative activity where they prove angle relationships, supported by instructional videos and structured guidance that facilitate active problem-solving.

To support students in expressing their mathematical understanding, the materials include sentence stems and structured guidance that help articulate reasoning. For example, Unit 1, Lesson 1, provides students with sentence starters such as "By reflecting a line across a line of _____, a parallel line was created," which guides students in verbalizing their thought processes. In Unit 1, Lesson 3, the collaborative activity includes multiple formats, such as fill-in-the-blank and short written responses, that encourage students to express their understanding in written form. These supports help students develop mathematical language and communicate their reasoning clearly and effectively.

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+ Geometry materials provide explicit guidance for educators to build knowledge by activating prior knowledge. The *Coursework Teacher Edition*, Unit 1, Lesson 1, "Teacher Prep Video" explicitly connects the guided activity to math concepts from prior grade levels, reinforcing vertical alignment. In Unit 2, Lesson 1, the "Teacher Prep Video" connects line segment constructions and the line segment postulate to foundational geometry concepts from earlier grades. In Unit 8, Lesson 2, the "Teacher Prep Video" references earlier lessons on triangle congruence to support instruction on triangle similarity using multiple similarity postulates. These examples demonstrate how the materials help educators draw on students' existing knowledge to support new learning.

Materials also support educators in anchoring big ideas. In the *Coursework Teacher Edition,* Unit 6, Lesson 11, "Teacher Prep Video," the narrator reiterates the concept that the interior angles of a quadrilateral sum to 360° and applies this understanding in a real-world context. In the "Unit 4 Overview," a structured outline of lessons, prompts, and guidance helps educators focus on central mathematical concepts across the unit: vertical angles, complementary and supplementary angles, and angle relationships formed by a transversal. These resources emphasize enduring understandings and promote conceptual coherence.

In addition, the materials highlight and connect key patterns, features, and relationships through multiple means of representation. In the *Coursework Teacher Edition,* Unit 6, Lesson 1, the "Teacher Prep Video" guides educators in modeling triangle constructions using a compass and verifying them with tracing paper. This sequence helps students connect the relationship between congruent sides and corresponding angles. In Unit 8, Lesson 2, the use of multiple similarity postulates further supports recognition of mathematical relationships. These instructional strategies make abstract concepts more accessible and reinforce structural connections across topics.

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

The materials provide educator guidance for effective lesson delivery by incorporating various instructional approaches that support diverse learning experiences. In the *Coursework Teacher Edition*, Unit 5, Lesson 2, "Teacher Prep Video," educators are guided through collaborative activities, independent work, pair shares, and matching exercises. Similarly, in Unit 6, Lesson 1, the "Teacher Prep Video" lesson facilitation includes collaborative activities and structured pair-share opportunities, reinforcing student engagement through multiple formats. These examples demonstrate how the materials support flexible and intentional lesson delivery.

In the *Coursework Teacher Edition,* Unit 10, Lesson 1, "Teacher Prep Video," instruction begins with peer collaboration on the properties of rectangles, transitions into a guided activity on special parallelograms, and concludes with an independent task using a Venn diagram to compare properties of a rectangle, square, and rhombus. This sequence illustrates a deliberate progression of instructional strategies that scaffold student understanding. Additionally, the Unit 10 "Teacher Prep Video" prompts educators to use a gallery walk to solve real-world problems with quadrilaterals, followed by collaborative construction of a parallelogram and a written reflection. These approaches reflect thoughtful facilitation that blends hands-on learning with reflective practice.

In the *Coursework Student Edition,* Unit 2, Lesson 1, students engage in a structured sequence of lessons to construct line segments using tools such as a compass or patty paper. Similarly, Unit 8, Lesson 4, presents a structured sequence in which students justify triangle similarity using the side-side-side (SSS), side-angle-side (SAS), and angle-angle (AA) criteria. The lesson begins with a guided activity, transitions to a collaborative task, and concludes with independent practice and a Check Your Understanding. These lessons demonstrate how the materials support lesson delivery through a consistent instructional arc that includes modeling, collaboration, and independent application.

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

The materials provide multi-tiered intervention methods and educator guidance to support effective implementation across various instructional structures. In *Coursework Teacher Edition,* Unit 5, Lesson 2, the "Teacher Prep Video" guides educators to use collaborative activities in pairs or small groups, with embedded suggestions to pause for whole-group discussion if students encounter common challenges. This flexible structure allows teachers to adjust instruction based on student needs and provides a clear model for differentiated support.

The materials also provide consistent guidance for structuring lessons using a variety of instructional phases to scaffold learning. In *Coursework Teacher Edition,* Unit 2, Lesson 1, "Teacher Prep Video," the lesson begins with a guided activity on constructing line segments using a compass and tracing paper. It

then transitions into a collaborative activity applying the segment addition postulate, followed by independent practice and a Check Your Understanding. Similarly, in *Coursework Teacher Edition,* Unit 4, Lesson 1, "Teacher Prep Video," students begin with collaborative activities to define and explore complementary and supplementary angles, move to a guided activity on proving angle relationships, and conclude with independent practice and a wrap-up task to determine angle measures.

In the *Coursework Teacher Edition,* Unit 10, Lesson 1, "Teacher Prep Video," the lesson structure includes peer collaboration on the properties of rectangles, a guided activity on special parallelograms, and an independent task using a Venn diagram to compare properties of a rectangle, square, and rhombus. This sequence demonstrates how the materials support effective implementation through a progression of instructional strategies that build conceptual understanding and allow for differentiated entry points.

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

The materials include enrichment and extension methods that support various forms of student engagement, along with guidance for educators to implement them effectively. The *Coursework Teacher Edition,* "Course Overview, Support for All Learners," provides Learning Pathways to show potential student learning extensions within the current course or from a future course. These pathways help educators identify opportunities for enrichment and ensure that advanced learners remain challenged through forward-looking content connections.

The *Coursework Teacher Edition,* Unit 2, Lesson 7, "Teacher Prep Video," includes an extension activity on tessellations. This activity allows students to explore the artistic and mathematical properties of tessellations, offering a creative opportunity to deepen their understanding beyond the core lesson objectives. The inclusion of this task demonstrates how the materials support various forms of engagement through hands-on, exploratory learning.

Together, these examples illustrate how the materials provide both structured pathways for academic extension and targeted activities that promote deeper exploration, while also equipping educators with the tools to implement them effectively.

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

The materials include both prompts and guidance that support educators in delivering timely feedback during instruction. The *Coursework Teacher Edition,* Unit 8, Lesson 2, "Teacher Prep Video" prompts educators to address student misconceptions after the first collaborative activity on triangle similarity. This prompt ensures that feedback is immediate and responsive to student thinking.

In the *Coursework Teacher Edition,* Unit 10, Lesson 2, "Teacher Prep Video," the collaborative activity includes a specific prompt that draws the teacher's attention to problem 4, which involves a system of

equations. The video also provides guidance on how to prepare students for this challenge, enabling educators to anticipate difficulties and deliver timely feedback that supports student success.

To further support formative assessment, *Coursework Teacher Edition,* Unit 7, Lesson 3, "Teacher Prep Video," includes guidance in the form of targeted questions that ask students to explain how the coordinates of a preimage and image demonstrate that a transformation preserves distance. These questions elicit meaningful responses, giving educators a clear opportunity to provide timely feedback and deepen student understanding through instructional dialogue.

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+ Geometry materials provide educators with specific strategies for incorporating linguistic accommodations, such as multilingual video options, scaffolded vocabulary support, and structured response formats. In the *Coursework Student Edition,* Unit 1, Lesson 1, and Unit 4, Lesson 1, students select their preferred language to access instructional videos, including those introducing new vocabulary. These features allow educators to support students at varying levels of English proficiency by offering content in both English and the students' native languages. Additional supports include fill-in-the-blank questions with dropdown menus and hands-on activities, like constructing line segments or proving angle relationships using tracing paper, which reduce reliance on English while maintaining academic rigor.

These accommodations are intentionally designed to help students develop and use academic language by gradually increasing the linguistic demands of tasks and encouraging structured discourse. For example, in the *Coursework Student Edition,* Unit 6, Lesson 1, students engage in cognitively demanding tasks, such as writing conjectures and using precise mathematical vocabulary. Activities like partner discussions, explanatory writing, and sentence completion tasks promote the use of academic language while supporting comprehension through visual and procedural scaffolds. The materials do not explicitly

differentiate by proficiency level, but they do support multiple levels through varied task types and repeated exposure to key terms, aligning with the ELPS.

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. Materials do not include 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. Although 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, 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 tasks. In the *Coursework Student Edition,* Unit 2, Lesson 1, and Unit 4, Lesson 1, students watch videos that build understanding incrementally and

introduce key vocabulary, such as terms related to angle relationships and segment construction. These lessons include opportunities for students to engage in academic conversations and written justifications using terms like *vertical angles, congruent,* and *the segment addition postulate,* promoting the use of academic language in context. However, the materials do not include scaffolds such as word banks, writing frames, or graphic organizers to support written responses, which limits accessibility for students still developing English proficiency.

To increase comprehension, the materials include embedded guidance that helps students access content through oral and written discourse tasks that require explanation, justification, and analysis. For example, the *Coursework Teacher Edition,* Unit 8, Lesson 4, prompts students to explain reasoning and verify solutions in writing, which supports comprehension through content-based explanation.

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 embedded strategies to build background knowledge explicitly. 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+ Geometry materials provide structured practice opportunities throughout learning pathways that require students to demonstrate a depth of understanding aligned with the TEKS. These opportunities are embedded in various instructional formats, including student-driven collaborative activities, guided instruction, real-world applications, and independent practice. Instructional assessments are embedded throughout the materials, such as Check Your Understanding and Test Yourself! activities.

In Unit 4, Lines and Angles, students engage in a variety of practice formats, including guided activities, collaborative tasks, independent practice, wrap-ups, and checks for understanding. For example, in Unit 4, Lesson 2, students complete a sequence of activities that support demonstration of depth of knowledge (DOK), culminating in a Check Your Understanding (TEKS G.5A and G.6A) and a Test Yourself! unit assessment (TEKS G.5A and G.6A).

In Unit 5, Rigid Motions, students explore similarity in real-world contexts involving two-dimensional figures. They determine heights, distances, and perimeters from visual representations and participate in a gallery walk to compare solutions. Check Your Understanding tasks prompt students to draw transformations, write algebraic descriptions, and justify congruence. The *Independent Skills Practice Book* reinforces these skills through tasks requiring students to describe and verify transformation sequences using algebraic notation (TEKS G.3A, G.3B, G.3C, G.6C).

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. Practice formats

include guided instruction, collaborative activities, independent tasks, and checks for understanding. For example, in *Coursework Student Edition*, Unit 4, Lines and Angles, students begin with angle pair relationships and progress to solving real-world problems and completing formal proofs, deepening their conceptual understanding (TEKS G.5A, G.5B).

Enrichment and extension materials are strategically embedded to challenge students beyond grade-level expectations. In Unit 10, Quadrilaterals, students move from proving properties of parallelograms to applying those properties in increasingly complex real-world contexts. The *Independent Skills Practice Book* reinforces this progression through tasks that require students to solve problems involving trapezoids and parallelograms, including determining unknown side lengths and angle measures using geometric properties (TEKS G.7A, G.7B).

The progression of tasks within and across units reflects a deliberate increase in cognitive demand, aligned with the expectations of the Geometry TEKS. In *Coursework Student Edition*, Unit 8, Similarity, students begin by drawing similar triangles and advance to proving similarity and solving real-world problems involving two-dimensional figures (TEKS G.4B, G.4C, G.6A). In Unit 5, Rigid Motions, students describe and write algebraic representations of transformation sequences and justify congruence, with tasks that build from visual reasoning to formal algebraic notation (TEKS G.3A, G.3B, G.3C, G.6C).

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+ Geometry materials demonstrate coherence across concepts horizontally within the grade level by introducing foundational ideas early and building on them throughout the course. The *Coursework Student Edition,* Unit 1, Foundations in Geometry, introduces students to core geometric concepts, including points, lines, angles, and basic constructions. Unit 5, Rigid Motions, revisits and extends these foundational ideas, and students deepen their understanding of transformations first introduced in Unit 1.

In *Coursework Student Edition,* Unit 5, "Introduction," students explore rigid motions, including translations, rotations, and reflections on the coordinate plane. The unit connects geometric transformations to their corresponding algebraic representations, reinforcing the relationship between geometry and algebra. Students describe and represent transformations using both written explanations and algebraic notation, which supports the identification of patterns and relationships across multiple representations. Activities such as matching preimages and images through sequences of transformations help reinforce the concept of congruence and the principle of distance preservation.

Coherence continues in Unit 9, Right Triangles, where students extend their understanding of right triangles by applying the Pythagorean theorem and are introduced to trigonometric ratios. This progression builds on earlier geometric reasoning and supports the development of conceptual connections across the grade-level content.

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 include questions and tasks that increase in rigor and complexity across lessons, supporting students in developing a deep understanding of the mathematics TEKS. Practice formats include guided instruction, collaborative activities, independent tasks, and checks for understanding. For example, in *Coursework Student Edition,* Unit 4, Lines and Angles, students begin with angle pair relationships and progress to solving real-world problems and completing formal proofs, deepening their conceptual understanding (TEKS G.5A, G.5B).

Enrichment and extension materials are strategically embedded to challenge students beyond grade-level expectations. In *Coursework Student Edition,* Unit 10, Quadrilaterals, students move from proving properties of parallelograms to applying those properties in increasingly complex real-world contexts. The *Independent Skills Practice Book* reinforces this progression through tasks that require students to solve problems involving trapezoids and parallelograms, including determining unknown side lengths and angle measures using geometric properties (TEKS G.7A, G.7B). Tools such as the "Correlation Documents" and *Independent Skills Practice Books* reference learning pathways and support instructional planning.

The progression of tasks within and across units reflects a deliberate increase in cognitive demand, aligned with the expectations of the Geometry TEKS, and demonstrates coherence across grade bands. Materials build on concepts introduced in middle school and extend them into high school Geometry. For example, in Unit 1, Foundations in Geometry, students revisit transformations, congruence, and similarity from grade 8. This task prepares students for deeper applications in Unit 5, Rigid Motions, where students justify congruence and develop formal proofs. The *Coursework Teacher Edition,* "Course Sequence," outlines how the first five units build on prior learning from grades 6–8 and extend into topics such as trigonometric ratios and coordinate geometry.

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 both mathematical concepts and procedures to the content taught in the current grade level. According to the *Coursework Teacher Edition,* "Lesson Alignment by Standard" document, Unit 5, Rigid Motions, builds on earlier concepts through lessons on rigid motions (TEKS G.3A–G.3C), with students performing and describing transformations, identifying sequences, and applying the definition of congruence through rigid transformations (TEKS G.6C). These lessons extend prior conceptual understanding of transformations and congruence while reinforcing procedural fluency in applying transformations in coordinate and non-coordinate contexts. The *Coursework Student Edition*, Unit 5, "Introduction," and the *Coursework Teacher Edition,* Unit 5, "Lesson Breakdown," further illustrate how each lesson builds upon previously introduced ideas.

The materials also connect both conceptual and procedural knowledge to future grade-level learning. The *Coursework Teacher Edition*'s Learning Pathway graphic maps Geometry standards (TEKS G.1–G.15) alongside Algebraic Reasoning standards (TEKS A.1.1–A.1.6), showing how foundational algebraic procedures such as solving equations (TEKS A.1.3), understanding transformations (TEKS A.1.5), and applying the Pythagorean Theorem (TEKS A.1.6) support Geometry topics like rigid motions (TEKS G.5), right triangles (TEKS G.9), and coordinate geometry (TEKS G.15). For example, in Unit 9, students apply trigonometric ratios (TEKS G.9A–G.9B) to solve problems involving right triangles, extending both conceptual and procedural understanding of the Pythagorean theorem introduced in earlier units. These

trigonometric concepts also prepare students for further study in precalculus, where trigonometric concepts are developed in greater depth. This structure supports a coherent instructional sequence that builds across and beyond the current grade level.

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+ Geometry materials provide spaced retrieval opportunities by revisiting previously learned skills and concepts across multiple units. In *Coursework Student Edition,* Unit 13, Lesson 7, warm-up questions prompt students to recall prior knowledge of percent change and angle classification before introducing the Triangle Inequality Theorem. In Unit 15, Figures on a Coordinate Plane, students apply earlier concepts such as slope and side lengths to classify triangles, reinforcing geometric reasoning through distributed practice.

Additional spaced retrieval opportunities are embedded in the *Coursework Student Edition,* Unit 3, Lesson 1, Check Your Understanding, where students revisit previously learned concepts and skills. The previously learned concepts are further supported by the *Independent Skills Practice Book* and *TEKS Correlation Guide with Breakouts*, which align earlier content with current learning goals across the Geometry course. For example, materials ask students to analyze figures on the coordinate plane and apply similarity and transformation concepts introduced in grade 8, reinforcing retention and transfer through targeted practice.

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

Materials provide interleaved practice opportunities by integrating previously learned concepts and procedures into new contexts across multiple units. In *Coursework Student Edition*, Unit 5, Rigid Motions, the guided activity, practice, wrap-up, and Check Your Understanding incorporate earlier transformation concepts, reinforcing prior learning while introducing new applications.

In the *Coursework Student Edition,* Unit 7, Lesson 3, students apply previously learned transformation skills, including reflections, translations, rotations, and dilations, to analyze sequences of transformations on the coordinate plane. These tasks require students to synthesize multiple transformation types and determine whether distance is preserved or not. Students use both visual tools and coordinate reasoning to justify their conclusions, supporting connections between geometric and algebraic representations.

Additional interleaved practice is evident in *Coursework Student Edition,* Unit 12, Arcs and Angle Relationships in Circles, where students develop an understanding of arcs, sectors, and radians while

applying previously learned skills such as finding the area of a circle, identifying chords, and using proportional reasoning. In Unit 15, Figures on a Coordinate Plane, students apply coordinate geometry to prove geometric relationships, drawing on earlier skills like calculating slope, finding similarity ratios, and identifying midpoints.

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+ Geometry materials provide students with opportunities to interpret mathematical concepts through real-world contexts and visual representations. In the *Coursework Student Edition,* Unit 4, Lesson 7, students examine the structural design of a steel roller coaster. Given a diagram of support beams, students determine whether certain beams are parallel based on angle relationships. This task requires students to interpret visual information and apply their understanding of corresponding, alternate interior, and consecutive angles. Similarly, in Unit 15, Lesson 14, students interpret geometric data in practical contexts such as construction and landscaping, using coordinate geometry to classify shapes and calculate area and perimeter.

Students are also given multiple opportunities to analyze mathematical relationships and structures. In Unit 9, Lesson 13, students apply coordinate geometry to analyze geometric figures, such as circles, triangles, and quadrilaterals, in real-world scenarios. Students examine relationships between coordinates, distances, and angles to develop accurate solutions. In Unit 7, Lesson 4, students use visual reasoning to analyze the sequence and effects of transformations, including evaluating which transformations preserve distance. These activities promote deeper analysis of mathematical properties and their implications.

The materials further support students in evaluating mathematical concepts and solutions within authentic scenarios. In *Coursework Student Edition,* Unit 4, Lesson 7, students justify the parallelism of lines and assess the reasonableness of their solutions. In Unit 15, Lesson 14, they evaluate cost-based decisions using geometric calculations. The *Independent Skills Practice Book* reinforces these skills by prompting students to identify equations of parallel lines and justify their reasoning using slope, supporting critical thinking and application.

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

The instructional materials provide students with opportunities to create concrete models of mathematical concepts through hands-on activities. In the *Coursework Student Edition,* Unit 2, Lesson 1, students use geometric tools to construct a duplicate of a given line segment and model congruent segments using toothpicks, followed by transformations to verify congruence. In Unit 2, Lesson 2, students use a compass to construct angles, reinforcing geometric principles through physical construction. These activities promote active engagement and deepen understanding as students manipulate and explore mathematical relationships directly.

Students also create representations of mathematical situations through visual and contextual modeling. In Unit 9, Lesson 10, students apply trigonometry to real-world scenarios by drawing lines of sight, labeling angles of elevation and depression, and constructing diagrams involving airplanes, lighthouses, and hot air balloons.

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 2, Lesson 1, students use geometric tools to construct a duplicate of a given line segment and model congruent segments using toothpicks, followed by transformations to verify congruence. In Unit 2, Lesson 2, students use a compass to construct angles, reinforcing geometric principles through physical construction. The *Independent Skills Practice Book* supports this approach with tasks that require students to construct perpendicular bisectors and angle bisectors using only a compass and straightedge, reinforcing precision and spatial reasoning.

Students are also given multiple opportunities to transfer their understanding to unfamiliar or real-world situations. In *Coursework Student Edition,* Unit 9, Lesson 10, students apply trigonometry to real-world scenarios by drawing lines of sight, labeling angles of elevation and depression, and constructing diagrams involving airplanes, lighthouses, and hot air balloons. The *Independent Skills Practice Book* complements this by presenting students with diagrams and measurements to calculate unknown distances using trigonometric ratios, reinforcing the connection between visual models and mathematical reasoning. These examples demonstrate how the materials consistently challenge students to apply mathematical concepts in meaningful, real-world 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+ Geometry materials provide tasks designed to build students' automaticity and fluency necessary to complete grade-level mathematical tasks. In *Coursework Teacher Edition,* Unit 5, Lesson 6, "Teacher Prep Video," students repeatedly perform sequences of transformations—reflections, rotations, and translations—using tracing paper and structured steps (copy, flip, slide). These hands-on routines build muscle memory and spatial awareness, helping students execute rigid motions quickly and accurately. The lesson also includes opportunities for students to describe and justify transformation sequences, promoting flexible reasoning and efficient problem-solving. Reinforcement is provided in the *Independent Skills Practice Book*, which asks students to describe and perform sequences of transformations using both written and algebraic notation, such as, "I can specify a sequence of transformations that will map a given figure onto another congruent figure."

Additional support for fluency development is evident in the *Coursework Teacher Edition.* The "Course Overview" includes a "Lesson Alignment by Standard" resource, which maps standards to lessons across units, showing repeated opportunities for students to engage with specific skills. For example, standard G.3B—focused on determining images under compositions of transformations—is addressed in Unit 5, Lessons 4 and 5. It is also revisited in *Coursework Student Edition*, Unit 7, Lesson 1, where students revisit dilations and describe them using scale factors, and in Unit 8, Lesson 5, where students solve problems involving similarity using corresponding sides of similar figures. These tasks provide repeated exposure to key concepts and procedures, reinforcing students' ability to apply them confidently and efficiently.

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 Teacher Edition,* Unit 5, Lessons 1, 2, and 5, students use coordinate rules to perform rigid motions efficiently, reducing the need for redrawing. The *Independent Skills Practice Book* reinforces this by having students apply transformation rules and determine whether distance is preserved using algebraic and graphical methods.

Students are encouraged to apply flexible mathematical procedures by exploring and justifying multiple strategies. In *Coursework Student Edition,* Unit 5, Lessons 6 and 7, students examine different transformation sequences and explain their reasoning using visual, written, and symbolic representations. The *Independent Skills Practice Book* supports this flexibility by prompting students to perform and analyze sequences of transformations involving reflections, rotations, and translations.

The materials emphasize precision in both reasoning and execution to support procedural accuracy. In *Coursework Student Edition,* Unit 4, Lines and Angles, students solve for unknown angle measures using postulates and theorems involving parallel lines and transversals. The *Independent Skills Practice Book* complements this by guiding students to apply the angle addition postulate and substitute values to determine precise angle measures. Together, these experiences help students build reliable habits for solving problems with mathematical precision.

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 meaningful opportunities for students to evaluate mathematical representations, models, strategies, and solutions, focusing on efficiency, flexibility, and accuracy. In the *Coursework Student Edition,* Unit 5, Rigid Motions, students explore transformations in the coordinate plane using both visual and algebraic representations. Students are asked to relate translations, rotations, and reflections, and to determine and apply sequences of transformations to map one figure onto another. These tasks support the evaluation of efficient strategies by encouraging students to select transformation paths that minimize steps while maintaining congruence.

In the *Coursework Student Edition,* Unit 9, Right Triangles, students engage with multiple models and strategies to solve problems involving right triangles. Students apply the Pythagorean theorem and trigonometric ratios for sine, cosine, and tangent to find missing side lengths and angle measures. These lessons promote flexibility by allowing students to choose among different methods depending on the given information. Students are also expected to evaluate the accuracy of their solutions by verifying results using appropriate mathematical tools and reasoning. In the *Coursework Teacher Edition,* Unit 9, additional support reinforces these practices by guiding students in selecting efficient strategies (e.g., using special right triangle patterns), comparing multiple solution paths, and applying precise procedures such as correct ratio setup and calculator use. These opportunities help students develop the ability to evaluate and justify their mathematical choices across a variety of contexts.

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

The materials provide consistent guidance to help students identify and apply the most efficient strategies when solving problems. The *Coursework Teacher Edition,* Unit 9, Lesson 9, and Unit 4, Lesson 6,

prompts students to choose between methods such as the Pythagorean theorem, trigonometric functions, and geometric theorems based on the context of the problem. This prompting promotes strategic thinking and supports students in selecting solution paths that minimize unnecessary steps. Unit 5, Lesson 7, reinforces this focus by encouraging students to compare transformation sequences and use algebraic notation, promoting precision and efficiency over purely visual approaches.

Additional embedded supports further develop students' ability to choose efficient methods. In Unit 5, Lesson 7, students apply a consistent rule for solving problems involving tangents and secants, helping them recognize when and how to use it effectively. Both the Unit 8, Lesson 2, "Teacher Prep Video" and Guiding Activity model streamlined approaches to proving similarity, breaking down complex reasoning into four manageable steps. These instructional features help students internalize efficient problem-solving habits across a variety of mathematical contexts.

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+ Geometry materials explicitly address the conceptual emphasis of the TEKS by guiding students to understand mathematical relationships through real-world applications that contextualize abstract concepts. In *Coursework Student Edition*, Unit 4, Lesson 7, students explore angle pair relationships by analyzing the angles of a roller coaster, supporting the development of geometric reasoning in context (TEKS G.6A). In Unit 9, Lesson 10, students apply trigonometric functions to determine angles of elevation and depression in real-life scenarios, reinforcing the application of geometric concepts to everyday situations (TEKS G.9A). Similarly, in *Coursework Teacher Edition*, Unit 11, Lesson 11, students calculate surface area in practical situations, such as packaging design and roofing, encouraging them to justify their solutions and evaluate their real-world implications (TEKS G.10A).

The procedural emphasis of the TEKS is supported by providing structured opportunities for students to practice and apply skills, such as using formulas, performing multistep calculations, and refining computational accuracy. In *Coursework Teacher Edition,* Unit 11, Lesson 10, students engage in repeated practice with surface area formulas for various three-dimensional figures, including prisms, cylinders, and composite shapes. Students substitute values correctly, convert units when necessary, and apply standard methods, such as calculating lateral area. These structured tasks reinforce procedural fluency and support mastery of geometric problem-solving techniques (TEKS G.11C).

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 real-world scenarios involving familiar objects and decision-making contexts. In the *Coursework Teacher Edition,* Unit 11, Lesson 9, students determine the most appropriate packaging for a basketball by calculating and comparing volumes of different containers. This task encourages hands-on reasoning and contextual modeling aligned with TEKS G.11D. Similarly, in Unit 11, Lesson 11, students engage with tangible examples like frosting cakes, estimating roofing materials, and evaluating packaging efficiency. These tasks ground geometric concepts in everyday experiences, making them more accessible and meaningful.

Opportunities are provided to support the use of pictorial representations by including tasks that require students to draw or interpret visuals, such as labeled diagrams, sketches, and structural illustrations. In *Coursework Teacher Edition,* Unit 11, Lesson 10, students analyze visual representations of three-dimensional figures, such as prisms, pyramids, and composite shapes, to support surface area calculations. These visuals help students conceptualize dimensions and spatial relationships.

Students are provided opportunities to engage with abstract models by solving problems using algebraic formulas, unit conversions, and multi-step calculations. Students apply surface area and volume formulas, justify their reasoning with mathematical expressions, and refine procedural fluency through repeated practice, aligning with TEKS G.11C and G.11D.

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 hands-on constructions and contextual applications that transition into symbolic reasoning. In *Coursework Student Edition,* Unit 2, Lesson 1, students use tools such as a compass, tracing paper, and ruler to construct line segments. This physical modeling activity is directly connected to the segment addition postulate, helping students bridge the gap between tangible actions and abstract mathematical principles (TEKS G.5B). Similarly, in *Coursework Student Edition,* Unit 12, Lesson 1, students construct congruent parallelograms and make conjectures about side lengths, reinforcing the connection between visual models and algebraic reasoning (TEKS G.5A, G.6E).

Opportunities are provided for students to create models that represent mathematical ideas such as nets of three-dimensional figures, coordinate transformations, and trigonometric relationships. In the *Coursework Teacher Edition,* Unit 11, Lesson 10, students engage in a gallery walk where they analyze nets of prisms, pyramids, and cones. Students use these visual models to derive and record surface area formulas, constructing understanding from physical representations and transitioning toward symbolic generalizations (TEKS G.11C).

Guidance is embedded to help students define the purpose and structure of the models they use by introducing and reinforcing key mathematical terms such as *slant height, lateral area,* and *surface area*. Students apply these definitions in a variety of contexts, including error analysis tasks that require them to identify and correct misconceptions. These activities help clarify how and why specific models are used, supporting students in articulating the mathematical reasoning behind their choices (TEKS G.11C).

Tasks prompt students to explain how their models represent mathematical thinking by requiring them to justify steps in proofs, describe transformations using coordinate notation, and connect prior knowledge to new concepts. For example, in *Coursework Student Edition,* Unit 6, Lesson 1, students describe and perform rigid and non-rigid transformations, while in Unit 9, Lesson 2, students apply the

Pythagorean theorem to develop trigonometric functions. These tasks support students in verbalizing and validating their mathematical thinking, reinforcing the connection between models and abstract reasoning (TEKS G.3A, G.9A).

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+ Geometry materials support the development of academic mathematical language through the use of visuals, such as coordinate plane diagrams, graphical representations, and student-constructed figures. In *Coursework Student Edition,* Unit 2, Lesson 2, students construct line segments and apply the segment addition postulate using tracing paper, a compass, and a ruler. These visuals define and reinforce terms such as *line, segment,* and *ray*, and are later applied in a real-world context involving hiking trail distances. In Unit 5, Lessons 5 and 6, students explore rigid transformations using coordinate grids and tracing paper to visualize translations, reflections, and rotations. These visuals are paired with vocabulary, including *isometry, congruence,* and *one-to-one correspondence*. The *Independent Skills Practice Book* reinforces this approach by prompting students to use tools to test triangle construction criteria and identify valid congruence theorems such as side-side-side (SSS), side-angle-side (SAS), and angle-angle (AA) postulates.

Students are given opportunities to build academic mathematical language using manipulatives, such as tracing paper, compasses, protractors, and rulers. In *Coursework Student Edition*, Unit 2, Lesson 2, students use these tools to construct and measure line segments, reinforcing vocabulary related to geometric definitions and postulates. In Unit 8, Lesson 1, students construct triangles based on given criteria and compare results to determine similarity using side-side-side (SSS), side-angle-side (SAS), and angle-angle (AA) postulates. The *Independent Skills Practice Book* supports this hands-on learning by guiding students to use tools to verify triangle similarity and congruence through construction and measurement.

To promote academic mathematical language, the materials incorporate language development strategies, such as collaborative prompts and guided reflection questions. In *Coursework Student Edition,* Unit 4, Lesson 1, students build on prior vocabulary through structured collaborative activities that reinforce terminology in context. Unit 5, Lessons 5 and 6, prompts students to describe transformations using academic language during partner discussions and written reflections. The *Independent Skills Practice Book* complements these strategies by asking students to explain whether a sequence of transformations preserves distance and to justify similarity or congruence using precise vocabulary.

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, such as prompts and modeling strategies that support vocabulary development during instruction. In *Coursework Student Edition,* Unit 4, Lesson 1, collaborative tasks reinforce prior vocabulary and guide students in applying terms related to angle relationships. In *Coursework Teacher Edition,* Unit 4, Lesson 7, teacher videos model how to determine whether roller coaster support beams are parallel using angle postulates and theorems, with prompts for students to justify reasoning using precise language. The *Independent Skills Practice Book* supports this by guiding students through vocabulary-based flowchart proofs involving parallel lines and transversals.

Educator supports are embedded within the materials to help students use academic mathematical vocabulary when interacting with peers and teachers in structured collaborative tasks and guided practice. In Unit 4, Lesson 7, students engage in partner discussions to apply vocabulary related to angle pairs and transversals in real-world contexts. The teacher video models how to guide these conversations and includes visual examples, such as furniture construction, to extend vocabulary use beyond abstract diagrams. These supports help students articulate their thinking and refine their use of academic terms through peer interaction.

The materials provide embedded guidance for educators, such as scaffolded sequences and vocabulary-rich tasks, to extend students' use of academic mathematical vocabulary in meaningful contexts. The *Coursework Teacher Edition,* Unit 5, Lesson 6, guides educators to model and reinforce terms like *isometry, rigid motion,* and *congruence* through hands-on activities involving tracing paper and coordinate plane transformations. The lesson structure includes collaborative prompts, fill-in-the-blank reasoning, and step-by-step construction tasks that encourage repeated and contextualized use of academic language.

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, such as vocabulary-driven tasks and structured opportunities for discourse. The *Coursework Teacher Edition,* Unit 4, Lesson 1, introduces students to terms including *complementary angles, supplementary angles, linear pairs,* and related theorems. The lesson applies these terms as students determine angle measures and congruence, then discuss their findings with a partner. After vocabulary is introduced, students complete a proof using a word bank, reinforcing the use of precise language in mathematical reasoning. The *Independent Skills Practice Book* supports this by prompting students to complete paragraph and flowchart proofs using vocabulary banks that include terms such as the *vertical angles theorem,* the *definition of midpoint,* and the *transitive property of congruence*.

To support the use of academic vocabulary in discourse, the materials provide embedded guidance that helps students communicate mathematical ideas clearly, such as collaborative activities and real-world applications. In Unit 9, Lessons 9 and 10, students explore right triangle trigonometry using terms like *angle of elevation, angle of depression, sine, cosine,* and *tangent*. Educators are guided to facilitate peer-to-peer definition building, comparison, and revision. Real-world contexts—such as airplane descent and lighthouse viewing—prompt students to justify their reasoning using appropriate vocabulary. Wrap-up reflections provide opportunities for students to assess their understanding and clarify misconceptions through academic discourse.

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, such as collaborative tasks that prompt students to describe and justify geometric relationships. In *Coursework Teacher Edition,* Unit 9, Lesson 3, students investigate slope and triangle similarity to develop an understanding of sine and cosine. As they compare triangles and construct conjectures, they are guided to use terms like *opposite, adjacent,* and *hypotenuse* in peer discussions. In Unit 10, Lesson 6, students participate in a gallery walk where they analyze real-world quadrilaterals and describe properties of parallelograms, rectangles, rhombi, and kites, using academic vocabulary in context.

To help students refine their mathematical language, the materials provide embedded guidance that supports peer-to-peer dialogue and feedback, such as structured opportunities to explain reasoning and respond to errors. In *Coursework Student Edition,* Unit 9, Lesson 4, students complete an error analysis task that requires them to explain a peer's mistake and justify the correct reasoning using trigonometric vocabulary. Unit 10, Lesson 6, asks students to describe conditions that define a quadrilateral as a specific type of parallelogram, encouraging precise use of geometric terms during partner discussions.

Students are supported in using mathematical language during conversations with peers through embedded guidance in the materials, such as collaborative investigations and vocabulary-driven prompts. In *Coursework Student Edition*, Unit 5, Lesson 1, collaborative activities are designed to facilitate mathematical conversations, prompting students to articulate their thinking and refine terminology through structured peer interaction. These supports ensure that students consistently engage with academic language in meaningful, discourse-rich settings. The *Independent Skills Practice Book* reinforces this by prompting students to explain whether two triangles are similar and justify their reasoning using vocabulary such as *corresponding angles* and *proportional sides*.

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, such as collaborative proof-writing activities that prompt students to analyze and revise reasoning. In *Coursework Teacher Edition,* Unit 3, Lesson 6, students examine a partially completed proof and respond to scaffolded questions that guide them in brainstorming how to complete it. After reviewing a partner's interpretation, students are encouraged to adjust their own reasoning, supporting flexible thinking and multiple valid approaches. In Unit 4, Lesson 1, warm-up activities include opportunities for students to evaluate multiple-choice responses, with teacher prompts designed to explore the validity of each option.

To support instructional clarity, the materials provide exemplar responses that illustrate accurate and complete ways students might respond to tasks, such as structured proof models and guided reasoning prompts. In *Coursework Student Edition,* Unit 3, Lesson 6, students transition from analyzing sample proofs to constructing their own, using a word bank and sentence frames to support precision and clarity. These examples help clarify expectations and reinforce the structure of formal mathematical arguments. The *Independent Skills Practice Book* reinforces this approach by including paragraph and flowchart proofs with word banks featuring terms such as the *vertical angles theorem,* the *definition of midpoint,* and the *transitive property of congruence*.

Embedded guidance in the materials helps educators support or redirect inaccurate student responses by offering suggestions for feedback and instructional moves, such as prompts for justification and reflection. The *Coursework Teacher Edition,* Unit 9, Lesson 10, guides educators to facilitate partner comparisons and error analysis in trigonometric modeling tasks. Teachers are encouraged to prompt students to evaluate the reasonableness of their solutions and revise their models accordingly, reinforcing conceptual understanding and the use of accurate mathematical language.

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+ Geometry materials demonstrate appropriate integration of TEKS process standards by embedding them within tasks and instructional routines, such as hands-on investigations, collaborative activities, and real-world applications that require students to select tools, use representations, and communicate mathematical ideas. In *Coursework Teacher Edition*, Unit 1, Lesson 4, students use tracing paper to dilate a line segment and reason visually about proportional relationships (TEKS G.1C, G.1F, G.1G). In Unit 3, Lesson 5, students construct two-column proofs using diagrams, coordinate geometry, and algebraic reasoning to justify mathematical arguments (TEKS G.1B, G.1E, G.1F, G.1G). In Unit 9, Lesson 10, students apply trigonometric ratios and the Pythagorean theorem to solve real-world problems, such as determining the height of a lighthouse (TEKS G.1A, G.1G).

Lessons throughout the course consistently identify the TEKS process standards addressed, making their integration visible and intentional. For example, in *Coursework Student Edition,* Unit 4, Lesson 6, students apply angle relationships and theorems to solve problems and justify reasoning (TEKS G.1A, G.1B). In Unit 15, Lesson 14, students use coordinate geometry to solve real-world problems involving perimeter and area (TEKS G.1A, G.1G). The "TEKS and ELPS by Lesson" document provides lesson-level documentation of these standards, ensuring that the process standards are embedded and traceable across instruction (TEKS G.1A, G.1B, G.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 real-world applications and structured problem-solving routines. In *Coursework Teacher Edition, U*nit 9, Lesson 10, students analyze the angle of depression of an airplane in relation to a runway, applying their understanding of parallel lines and transversals to determine angle congruence. This task aligns with geometric reasoning expectations (TEKS G.9A) and supports applying mathematics to everyday contexts (TEKS G.1A) and communicating reasoning using diagrams and verbal explanations (TEKS G.1D). In Unit 9, Lesson 9, students continue to develop these skills by using representations to organize and justify their thinking, reinforcing the connection between geometric reasoning and mathematical communication.

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 Unit 9 learning pathway on right triangles. This sequence of lessons guides students through the full problem-solving model, including analyzing information, selecting strategies, solving problems, and evaluating solutions (TEKS G.1B). In Unit 9, Lessons 6, 8, 9, and 10 embed process standards through tasks that require students to apply trigonometric ratios, construct and interpret diagrams, and generalize relationships using the unit circle. Students consistently use tools such as calculators and labeled figures (TEKS G.1C), communicate reasoning with precision (TEKS G.1G), and deepen conceptual understanding through structured reflection and justification (TEKS G.1F).

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 G.1E is linked to lessons that involve collaborative activities requiring students to create and use representations, while TEKS G.1A is connected to lessons focused on solving systems of equations in real-world contexts. This structured mapping supports 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+ Geometry materials provide meaningful opportunities for students to think mathematically through tasks that emphasize reasoning, pattern recognition, and conceptual understanding. In *Coursework Student Edition*, Unit 2, Lesson 5, students construct perpendicular bisectors and test conjectures. In Unit 7, Lesson 7, they justify the similarity between circles using transformations. The *Independent Skills Practice Book* reinforces these skills through similarity proofs and vocabulary support.

Students are encouraged to persevere in problem-solving as they engage with activities that involve multi-step reasoning and conceptual exploration. In *Coursework Student Edition,* Unit 2, Lesson 5, students solve algebraic problems involving segment lengths and justify their conclusions. In Unit 9, Lesson 3, they identify and correct errors in a trigonometric table, requiring persistence and attention to detail.

The materials include structures and supports that connect procedures to conceptual understanding and real-world contexts to help students make sense of mathematics. In *Coursework Student Edition,* Unit 7, Lesson 7, students analyze coordinate plane examples and reflect on similarity transformations using visual models and written explanations. In Unit 9, Lesson 3, guiding tips and a video tutorial help students reason through errors and assess the reasonableness of their answers.

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 by presenting problems that can be approached using different mathematical strategies. In *Coursework Student Edition,* Unit 7, Lesson 7, students justify different transformation sequences, such as translations followed by dilations, to show similarity between circles. In Unit 9, Lesson 9, students solve right triangle problems using either trigonometric ratios or the Pythagorean theorem, depending on the given information. The *Independent Skills Practice Book* gives students triangle problems that can be solved

using different strategies. Students must choose and justify their method, reinforcing the idea that multiple approaches are valid.

Students are encouraged to explain and justify their thinking as they explore different methods for solving problems and completing tasks through structured activities that require them to articulate their reasoning. In *Coursework Student Edition,* Unit 4, Lesson 9, students prove lines parallel using various angle relationships. In Unit 9, Lesson 9, they explain their choice of method—sine, cosine, or the Pythagorean theorem—based on known values.

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 embedding comparison tasks and reflective questions into the lesson structure. In *Coursework Student Edition,* Unit 4, Lesson 9, students evaluate different proofs for parallel lines. In Unit 7, Lesson 7, they compare transformation sequences and reflect on invariant properties.

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, constructing diagrams, and applying mathematical concepts in context. In *Coursework Student Edition,* Unit 3, Lesson 3, students work with a partner to critique logical arguments in a card game scenario. In Unit 14, Lesson 8, they rewrite circle equations, complete tables, and apply algebraic reasoning. The *Independent Skills Practice Book* reinforces this engagement through diagram-based problems involving circle equations and transformations.

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 their reasoning, justify their methods, and reflect on their understanding. In *Coursework Student Edition,* Unit 9, Lesson 10, students describe their use of trigonometric ratios or how they found missing values. In Unit 14, Lesson 8, they reflect on completing the square and identifying circle features, supporting clarity in written expression.

Students are encouraged to deepen their understanding through peer and teacher discussions facilitated by materials that embed collaborative structures and guiding questions throughout the lessons. In *Coursework Student Edition,* Unit 3, Lesson 3, students verify their reasoning, summarize their partners' responses, and compare solutions. In Unit 9, Lesson 7, they share conjectures and validate reasoning through group discussion, promoting 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+ Geometry materials support educators in guiding students to share their problem-solving approaches by providing opportunities and guidance that promote collaborative discussion, written reflection, and strategic use of multiple methods. For example, in *Coursework Teacher Edition,* Unit 2, Lesson 1, students use transformations, tracing paper, and a ruler to determine segment congruence and explain each method. In contrast, Unit 5, Lesson 3 includes a Collaborative Activity that fosters peer discussion and comparison of strategies.

The materials offer guidance that supports both verbal and written reasoning to help students reflect on and justify their thinking, including the explanations and arguments behind their chosen strategies. For example, in Unit 2, Lesson 3, students justify the consistency of parallel line constructions and reflect on this through written summaries. In contrast, in Unit 9, Lesson 7, they summarize and verify peer conjectures, reinforcing reflection and justification.

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 construction methods and structured peer interactions. For example, in Unit 2, Lesson 3, students explore two methods for constructing parallel lines. In Unit 14, Lesson 8, students use algebra tiles and engage in collaborative discussions to connect visual models with symbolic reasoning when rewriting circle equations.

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 deeper understanding through targeted questioning and structured discussion. In *Coursework Teacher Edition,* Unit 2, Lesson 1, a teacher video models compass use with guiding questions that elicit reasoning, while Unit 5, Lesson 3, includes prompts that anticipate varied responses and support peer discussion and teacher clarification.

To support meaningful feedback, the materials offer prompts and guidance that help educators interpret and respond to a range of student responses by embedding checks for understanding and revealing common misconceptions. For example, in Unit 9, Lesson 6, prompts guide real-time feedback during collaborative work, and in Unit 14, Lesson 8, algebra tile activities show misconceptions and support connections between visual and symbolic reasoning.

Educators are supported in identifying and addressing anticipated misconceptions through materials that include guidance and feedback strategies, such as comparison tasks, reflective prompts, and visual models. For example, in Unit 2, Lesson 1, students discuss segment addition and diagram interpretation, while in Unit 9, Lesson 7, students engage in peer conjecture summaries that help clarify misunderstandings and reinforce precise mathematical language.