



High-Quality Instructional Materials

OFFICE OF CURRICULUM AND INSTRUCTION



OKLAHOMA
Education

Oklahoma Mathematics Instructional Materials Evaluation Rubric

Instructional materials selection is an important district decision, and conducting a thorough review of instructional materials at the local level is essential in ensuring the adoption of high-quality instructional materials that meet the needs of students within a district. This evaluation rubric is designed to offer an evaluation structure that districts can utilize to determine how well instructional materials align to the Oklahoma Academic Standards (OAS) and other criteria for high-quality instructional materials. The evaluation rubric includes key considerations for high-quality instructional materials and outlines three **Gateways** for consideration when evaluating materials. Within each Gateway, **Criterion** and related **Indicators** are provided along with **Guiding Questions**. Additionally, **Priority Indicators** are indicated with an asterisk (*) as they have been deemed most essential to a quality program. Each **Indicator** is evaluated as Not Representing Quality, Approaching Quality, or Exemplifies Quality using a 0-1-2 or 0-2-4 scale score.

All scores should be based on evidence observed from the instructional materials themselves, rather than what might be inferred. The evaluation rubric is designed to allow reviewers to determine a threshold for quality for each gateway. If instructional materials meet the thresholds for Exemplifies Quality or Approaching Quality expectations for a Gateway, reviewers are prompted to move forward with reviewing the next Gateway (→). If instructional materials do not meet the thresholds for Exemplifies Quality or Approaching Quality expectations for a Gateway, reviewers are prompted not to move forward with reviewing the next Gateway (⊗).

Gateway 1 Alignment with the Oklahoma Academic Standards and Coherence	Exemplifies Quality →	Gateway 2 Building Student Knowledge	Exemplifies Quality →	Gateway 3 Teacher and Student Supports and Usability
	Approaching Quality →		Approaching Quality →	
	Not Representing ⊗		Not Representing ⊗	
Quality	Quality			

6-12 Mathematics Instructional Material Evaluation Rubric - Approved February

Titles of Material(s)	Understanding Basic Statistics, 9e, by Brase & Brase	Grade(s) Evaluated	
Publisher	Cengage	Reviewer	

Review Summary

Gateway		Criterion	Score	Rating
1	Alignment with the Oklahoma Academic Standards and Coherence	1.1 Alignment with the Oklahoma Academic Standards	14 / 14	Exemplifies Quality
		1.2 Learning Progressions and Coherence	10/10	Exemplifies Quality
		Gateway 1 Sub-Total	24 / 24	Exemplifies Quality
		2.1 Student Opportunities to Engage in Mathematical Actions and Processes	14 / 14	Exemplifies Quality
2	Building Student Knowledge	2.2 The Actions and Processes of the Oklahoma Academic Standards	12 / 12	Exemplifies Quality
		2.3 Assessment	14 / 14	Exemplifies Quality
		Gateway 2 Sub-Total	40 / 40	Exemplifies Quality
		3.1 Differentiation, Scaffolding, and Supports for All Learners	10 / 10	Exemplifies Quality
3	Teacher and Student Supports and Usability	3.2 Teacher Planning and Learning for Success with the Oklahoma Academic Standards	10 / 10	Exemplifies Quality
		Gateway 3 Sub-Total	20 / 20	Exemplifies Quality
		Overall Rating		Total Score
Exemplifies Quality: All Gateways are Exemplifies Quality Approaching Quality: All Gateways are Approaching Quality or Better Not Representing Quality: Any Gateway is Not Representing Quality		84 / 84	Exemplifies Quality	

The instructional materials are coherent and consistent with the Oklahoma Academic Standards that specify what all students should know and be able to do as learners of mathematics at the end of each grade level.

To determine the Gateway rating, educators use evidence gathered from the instructional materials to score indicators related to each criterion.

Gateway 1 Overview		
Criterion	Indicators	Available Points
Criterion 1.1: Alignment to the Oklahoma Academic Standards The instructional materials align with the Oklahoma Academic Standards for Mathematics.	1a. - 1f.	14
Criterion 1.2: Learning Progressions and Coherence The instructional materials support the learning progressions emphasized in the Oklahoma Academic Standards for Mathematics so that the curriculum is coherent both within grades and across grade bands.	1g. - 1j.	10
		24

Criterion 1.1 Alignment to the Oklahoma Academic Standards	The instructional materials align with the Oklahoma Academic Standards for Mathematics.		
Indicators	Guiding Questions	Score	Comments
<p>1a. The materials provide students with opportunities to develop a deep understanding of numbers, ways of representing numbers, relationships among numbers, relationships among number systems, and meanings of operations and how they relate to one another, as represented in the Oklahoma Academic Standards for Mathematics Numbers & Operations strand.</p> <p>In math courses that do not have an applicable Numbers & Operations strand to reference, instructional materials provide students with the opportunity to apply their deep understanding of numbers to the other strands represented in the Oklahoma Academic Standards for Mathematics.</p>	<ul style="list-style-type: none"> ● Do the materials prompt students to relate and connect numbers? ● Do the materials allow students to interact with numbers in various representations? 	<p>0 1 2</p>	<p>The Statistics & Probability Standards do not include a Numbers & Operations strand.</p> <p>The text provides many opportunities for students to work with data and numbers in many ways.</p> <p>Students calculate and use summary statistics to evaluate and use distributions (Chapter 3)</p> <p>Students create and analyze scatter plots and learn to use data to draw conclusions. Analysis of regression and correlation includes deviations from linearity. (Chapter 4)</p> <p>Students engage with ratios and division with regular and compound probability. (Chapter 5)</p>

Criterion 1.1 Alignment to the Oklahoma Academic Standards		The instructional materials align with the Oklahoma Academic Standards for Mathematics.		
Indicators	Guiding Questions	Score	Comments	
<p>1b. The instructional materials provide students with opportunities to understand patterns, relations, and functions; represent and analyze mathematical situations and structures using algebraic symbols; use mathematical models to represent, understand, and predict quantitative relationships; and analyze change in various contexts, as represented in the Oklahoma Academic Standards for Mathematics Algebra & Algebraic Reasoning and/or Functions strands.</p> <p>In math courses that do not have an applicable Algebra & Algebraic Reasoning or Functions strand to reference, instructional materials provide students with the opportunity to use, apply, and extend these concepts to the other strands represented in the Oklahoma Academic Standards for Mathematics.</p>	<ul style="list-style-type: none"> • Do the materials embed tasks that require students to use pattern-based thinking to understand and represent mathematics in various contexts? • Do the materials include tables, pictures, graphs, open sentences, equations or inequalities, rules, and functions to model mathematics in various contexts? • Do the materials include opportunities for students to form and verify generalizations based on observations of patterns and relationships? 	<p>0 1 2</p>	<p>The Statistics & Probability Standards do not include an Algebraic Reasoning or Functions strand.</p> <p>Within the course, algebraic techniques are used to understand probability rules and calculations.</p> <p>Histograms, bar charts, stem-and-leaf plots, box-and-whisker charts, and scatterplots are used throughout the course.</p> <p>Probability rules are used to develop mathematical rules for binomial and normal distributions.</p>	

Criterion 1.1 Alignment to the Oklahoma Academic Standards	The instructional materials align with the Oklahoma Academic Standards for Mathematics.		
Indicators	Guiding Questions	Score	Comments
<p>1c. The instructional materials provide students with opportunities to develop arguments based on geometric relationships; describe spatial relationships using coordinate geometry and other representational systems; apply transformations and symmetry to analyze mathematical situations; utilize visualization, spatial reasoning, and geometric modeling to solve problems; understand the units, systems, and processes of measurement; and apply appropriate techniques, tools, and formulas to determine measurements, as represented in the Oklahoma Academic Standards for Mathematics Geometry and Measurement strand; the Reasoning & Logic, Two-Dimensional Shapes, Three-Dimensional Shapes, Circles, and Right Triangle Trigonometry strands within the Oklahoma Academic Standards for Geometry; or the Conic Sections and Trigonometry strands within the Oklahoma Academic Standards for Precalculus.</p> <p>In math courses that do not have an applicable Geometry & Measurement strand or set of strands to reference, instructional materials provide students with the opportunity to use, apply, and extend these concepts to the other strands represented in the Oklahoma Academic Standards for Mathematics.</p>	<ul style="list-style-type: none"> Do the materials include tasks that prompt students to recall, generate, model, and justify geometric concepts? Do the materials include tasks with a variety of two- and three-dimensional objects to promote visualization, spatial reasoning, and geometric modeling? 	<p>0 1 2</p>	<p>The Statistics & Probability Standards do not include any Geometry strands.</p> <p>Students make use of geometric area formulas when working with probability distributions (section 6.1).</p> <p>Scatterplots and linear regression are based upon the coordinate plane (Chapter 4, section 11.4).</p> <p>Probability concepts including complements, conditional and independent events are based on logical rules (Chapters 4 and 5).</p>

Criterion 1.1 Alignment to the Oklahoma Academic Standards	The instructional materials align with the Oklahoma Academic Standards for Mathematics.		
Indicators	Guiding Questions	Score	Comments
<p>1d. The instructional materials provide students with opportunities to formulate questions that can be addressed with data; to collect, organize, and display relevant data; to select and use appropriate statistical methods to analyze data, develop and evaluate inferences and predictions based on data; and to understand and apply basic concepts of probability, as represented in the Oklahoma Academic Standards for Mathematics Data and Probability strand or the Statistical Questions, Data Collection, Data Analysis, Interpretation of Results, and Probability strands in the Oklahoma Academic Standards for Statistics & Probability.</p> <p>In math courses that do not have an applicable Data & Probability strand or set of strands to reference, instructional materials provide students with the opportunity to use, apply, and extend these concepts to the other strands represented in the Oklahoma Academic Standards for Mathematics.</p>	<ul style="list-style-type: none"> • Do the materials include a variety of student interests and prompt student investigation to collect, organize, and display data? • Do the materials model the use of concrete or abstract representations (e.g., pictures, symbols, expressions, equations, graphics) of data and mathematical relationships? 	<p>0 1 2</p>	<p>The text thoroughly covers nearly all of the Oklahoma Academic Standards for Mathematics for Statistics and Probability:</p> <p>Statistical Questions (Q):</p> <ul style="list-style-type: none"> • Distinguish between mathematical and statistical models (pgs 18, 105) • Distinguish between population, sample data, and sampling distributions (pgs 9-15, 406-416) • Distinguish between categorical and quantitative data (pgs 5-11, 58-65) <p>Data Collection (DC)</p> <ul style="list-style-type: none"> • Understand and use different data collection methods (pgs 20-26, 303-306) • Understand the importance of randomization and sources of bias in study design (pgs 44-82, 93-121, 294-295) • Work with the normal distribution (pgs 288, 355-377) • Compare distributions and variables (pgs 44-59, 137-171) • Make statistical claims (pgs 286-295, 340-373) <p>Interpretations of Results (IR)</p>

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			<ul style="list-style-type: none"> • Interpret the results of statistical analysis (pgs 421-429, 446-470, 478-484) • Evaluate the implications of statistical significance and evaluate real-world claims (pgs 16-25, 145-146, 397-402) <p>Probability (P)</p> <ul style="list-style-type: none"> • Connect probability to statistical analysis (pgs 176-188, 204-220) • Determine and interpret probabilities in complex problems (pgs 185-204, 499-512) • Use probabilities to make decisions (pgs 286-287, 390-401, 524-529)
<p>*1e. The materials address the full intent of the grade-level objectives and are aligned with the Oklahoma Academic Standards for Mathematics.</p>	<ul style="list-style-type: none"> • Are all Oklahoma Academic Standards for the course supported by the content of the materials? • Are all Oklahoma Academic Standards for the course addressed with the appropriate depth to support students in learning the skills and information contained in the standards? 	<p>0 2 4</p>	<p>The text covers all of the Statistics and Probability Oklahoma Academic Standards and incorporates other mathematical skills as appropriate.</p>

Criterion 1.1 Alignment to the Oklahoma Academic Standards		The instructional materials align with the Oklahoma Academic Standards for Mathematics.			
Indicators	Guiding Questions	Score	Comments		
1f. The instructional materials connect the content of the Oklahoma Academic Standards for Mathematics to relevant application in real-world experiences including but not limited to college majors, postsecondary programs, and careers.	Do the materials include tasks that connect relevant learning experiences, as called for by the Oklahoma Academic Standards?	0 1 2	Examples and problems throughout the text are based on real-world data, often based on real scientific studies or data sets. (Some examples can be found pgs: 56, 64, 111, 163, 255, 377, 404, 432, 557) Every chapter ends with at least one large-scale project suggestion that is based in real-world application of the content.		
Criterion 1.1 Summary		Rating Levels		Sub-Total	Rating
		Exemplifies Quality: 12 - 14 Approaching Quality: 8 - 11 Not Representing Quality: 0 - 7		14 / 14	Exemplifies Quality

Criterion 1.2 Learning Progressions and Coherence	The instructional materials support the learning progressions emphasized in the Oklahoma Academic Standards for Mathematics so that the curriculum is coherent both within grades and across grade bands.		
Indicators	Guiding Questions	Score	Comments
1g. The amount of content designated for one grade level is viable for one school year and fosters coherence from one grade level to the next.	Do the instructional materials allow for reasonable completion in one academic year and connect content knowledge from one year to the next?	0 1 2	<p>The text contains 11 chapters, which cover a broad variety of topics in statistics. The content can reasonably be expected to be covered in one school year.</p> <p>Some Algebra and Algebra 2 courses include some statistics content, and this text supports and expands upon those ideas.</p>
1h. The materials are consistent with the progressions in the Oklahoma Academic Standards for Mathematics. <ul style="list-style-type: none"> ● Materials relate grade-level concepts explicitly to prior knowledge from earlier grades. ● Materials develop according to the grade-by-grade progression in the Standards. If past or subsequent grades' content is included, it is clearly identified and related to grade-level work. 	<ul style="list-style-type: none"> ● Are the materials consistent with the progression in the standards? ● Is grade-level content connected to specific standards from earlier grades? 	0 1 2	<p>The content flows in a meaningful and logical way, in line with the Oklahoma standards for statistics.</p> <p>Students learn how to gather and organize data, then how to summarize data and begin looking for relationships between variables. Probability is introduced, then the normal distribution and sampling distributions, which leads into several chapters on inferential statistics.</p>

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<p>*1i. The instructional materials provide all students with comprehensive and extensive opportunities to engage with grade-level activities.</p>	<ul style="list-style-type: none"> Do materials concentrate on the mathematics of the grade/course as referenced in the Oklahoma Academic Standards? Do the materials support student engagement with appropriate grade-level activities? 	<p>0 2 4</p>	<p>The text provides a comprehensive coverage of the content in the Oklahoma statistics standards. All content is at an appropriate level for students who have completed an Algebra 2 course.</p>
<p>1j. The materials foster coherence across a single grade through connections among the Oklahoma Academic Standards for Mathematics.</p>	<p>Are there problems and activities that serve to connect two or more standards in a strand or two or more strands in a grade?</p>	<p>0 1 2</p>	<p>Each chapter builds on the learnings in previous chapters. For example, the normal distribution and sampling distributions, in the Data Analysis strand, are based on the Statistical Questions and the Probability strands. The text makes these connections clear to support student understanding.</p>

Criterion 1.2 Learning Progressions and Coherence	The instructional materials support the learning progressions emphasized in the Oklahoma Academic Standards for Mathematics so that the curriculum is coherent both within grades and across grade bands.		
Indicators	Guiding Questions	Score	Comments
Criterion 1.2 Summary	Rating Levels	Sub-Total	Rating
	Exemplifies Quality: 8 - 10 Approaching Quality: 7 - 9 Not Representing Quality: 0 - 6	10 / 10	Exemplifies Quality

Gateway 1 Points Available	Rating Levels	Gateway 1 Points Achieved	Gateway 1 Rating
24	Exemplifies Quality: 20 - 24	24 /24	Exemplifies Quality
	Approaching Quality: 13 - 19		
	Not Representing Quality: 0 - 12		
Gateway 1 Comments			

Gateway 2: Building Student Knowledge and Access

Gateway 2 examines the way materials provide opportunities for students to engage with, discuss, problem-solve, and deeply understand mathematics.

To determine the Gateway rating, educators use evidence gathered from the instructional materials to score indicators related to each criterion.

- ❑ **Materials must receive a score of Exemplifies Quality or Approaching Quality in Gateway 1 in order to be reviewed in Gateway 2.**

Gateway 2 Overview		
Criterion	Indicators	Available Points
Criterion 2.1: Student Opportunities to Engage in the Mathematical Actions and Processes (MAPs) The instructional materials provide opportunities for students to regularly use the MAPs to gain a deep understanding of the content.	2a. - 2g.	14
Criterion 2.2: The Actions and Processes of the Oklahoma Academic Standards for Mathematics The materials provide explicit opportunities for students to demonstrate independent progress to develop proficiency in the Oklahoma Academic Standards.	2h. - 2l.	12
Criterion 2.3 Assessment The materials provide tools, guidance, and support for teachers to collect, interpret, and act on data about student progress towards the Oklahoma Academic Standards.	2m. - 2r.	14
		40

Criterion 2.1 Student Opportunities to Engage in the Mathematical Actions and Processes (MAPs)		The instructional materials provide opportunities for students to regularly use the MAPs to gain a deep understanding of the content.		
Indicators	Guiding Questions	Score	Comments	
2a. Attention to Developing a Deep and Flexible Conceptual Understanding: The materials support the intentional development of students' conceptual understanding of key mathematical concepts, especially where called for in specific academic standards and objectives.	<ul style="list-style-type: none"> • Are tasks and lessons in a sequence connected by an overarching mathematical concept and/or common context that links the mathematics and tasks? • Do the materials regularly include opportunities for students to apply and use mathematics in non-routine problems in the learning sequence? 	0 1 2	<p>Each lesson is structured in a consistent manner, with learning objectives stated, then content is taught, with examples and guided exercises. Each lesson contains 2-4 new learnings that build upon each other.</p> <p>Each set of practice exercises contain critical thinking problems, in which students apply their learning to a novel problem.</p>	
2b. Attention to Developing Accurate and Appropriate Procedural Fluency: The materials provide intentional opportunities for students to develop procedural skills fluently, especially where called for in specific academic standards and objectives.	<ul style="list-style-type: none"> • Do the materials provide students with opportunities to apply math and problem solving procedures to a variety of problems and contexts accurately, efficiently, and flexibly? • Do the materials consistently provide students with opportunities to justify their choices of procedures when solving problems and to strengthen their understanding and skill through practice? 	0 1 2	<p>Each lesson is followed by an extensive set of practice exercises. These begin with straight-forward skill practice problems, then statistical literacy problems to check general conceptual understanding.</p> <p>These are followed by many different types of application problems, in which students solve multi-part problems and justify their methods and reasoning.</p>	

Criterion 2.1 Student Opportunities to Engage in the Mathematical Actions and Processes (MAPs)		The instructional materials provide opportunities for students to regularly use the MAPs to gain a deep understanding of the content.	
Indicators	Guiding Questions	Score	Comments
<p>2c. Attention to Developing Mathematical Reasoning: Materials prompt students to explore and communicate a variety of reasoning strategies to think through problems and includes opportunities for students to construct viable arguments and analyze the arguments of others concerning key grade-level mathematics details in the content standards.</p>	<ul style="list-style-type: none"> Do students have opportunities to construct viable arguments and analyze the arguments of others (e.g. analyzing student work, conversation stems)? Are students presented with tasks that enable them to reason with mathematics, discuss, and debate appropriate processes and solutions (e.g. collaborative activities, math talks)? 	0 1 2	<p>Many lessons contain “Critical Thinking” activities in which students are presented with content and questions to consider in small groups or as a class.</p> <p>The practice sets contain some problems in which students compare different methods or analyze model student responses. Many problems throughout the text require justification, explanation. These can be used in class to begin and support student discourse.</p> <p>Each chapter contains multiple group project ideas with multiple parts and steps.</p>
<p>2d. Attention to Developing the Ability to Communicate Mathematically: Materials explicitly attend to students discussing, writing, reading, interpreting, and translating ideas and concepts mathematically, increasing their use of mathematical language and terms and analysis of mathematical definitions as they progress through each grade level or course.</p>	<ul style="list-style-type: none"> Do materials attend to the specialized language of mathematics? Do the materials provide opportunities for students to communicate mathematically using multiple methods (e.g., presentation, model)? 	0 1 2	<p>Statistics contains many new terms, and the text introduces these terms with definitions, descriptions, and graphics.</p> <p>Students learn to display data in many forms and attend to precision as they describe and analyze data.</p> <p>Each chapter contains review projects in which students calculate and support responses, and writing projects in which students make</p>

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			connections between concepts learned.
<p>2e. Attention to Developing Strategies for Problem Solving: Materials include multiple entry points and strategies for students to select from to pursue solutions to various mathematical tasks.</p>	<ul style="list-style-type: none"> • Do the materials include strategies for students to discuss and reflect on their own problem-solving strategies for mathematics? • Do the materials provide strategies for students to compare a problem solving strategy to alternative problem-solving strategies? 	<p>0 1 2</p>	<p>The text regularly teaches and supports students in deciding between multiple viable strategies. These include:</p> <ul style="list-style-type: none"> • Considering different ways to display data and comparing the benefits and drawbacks of each. • Analyzing which summary statistics best represent a data set for a certain purpose.

Criterion 2.1 Student Opportunities to Engage in the Mathematical Actions and Processes (MAPs)		The instructional materials provide opportunities for students to regularly use the MAPs to gain a deep understanding of the content.	
Indicators	Guiding Questions	Score	Comments
2f. Attention to Developing a Productive Mathematical Disposition: Materials include opportunities for students to make use of patterns and mathematical structures and develop the ability to persevere and become resilient, effective problem solvers.	<ul style="list-style-type: none"> Do the materials provide opportunities for students to collaborate with one another, reflect, and ask clarifying questions to develop a value for alternative ways of knowing? Do the materials encourage a student mindset that problem solving extends beyond procedural or algorithmic activities with a goal that is limited to the identification of a correct answer? 	0 1 2	<p>Every lesson contains multiple examples that teach how to tackle problems in small pieces, typically in the form of Guided Exercises.</p> <p>In the practice sets, every lesson contains many multi-part problems in which students are supported in developing a structure for solving novel applications of the learning.</p>
2g. Attention to Developing the Ability to Make Conjectures, Model, and Generalize: Materials include opportunities to make predictions, draw conclusions, and make sense of problems through the use of modeling and other problem-solving strategies.	<ul style="list-style-type: none"> Do the materials prompt students to make a prediction about possible outcomes to a question and explain with reasoning? Do the materials allow students to make connections between ideas, refine processes, and extend their known strategies to apply to larger numbers and problems? 	0 1 2	<p>Throughout the text, lessons provide examples in which problems are presented, a model is created, analyzed, and used to solve the problem.</p> <p>In each exercise set, application problems are given with scaffolding prompts to support students in creating the connections from previous learning to the current problem.</p> <p>All problem sets include multiple Critical Thinking problems, in which students engage with abstract or general forms of the content from the lesson.</p>

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	Rating Levels	Sub-Total	Rating
Criterion 2.1 Summary	Exemplifies Quality: 12 - 14 Approaching Quality: 8 - 11 Not Representing Quality: 0 - 7	14 / 14	Exemplifies Quality

Criterion 2.2 The Actions and Processes of the Oklahoma Academic Standards for Mathematics		The materials provide explicit opportunities for students to demonstrate independent progress to develop proficiency in the Oklahoma Academic Standards.		
Indicators	Guiding Questions	Score	Comments	
*2h. Materials include explicit student learning goals that solicit observable evidence of student learning within progressions that guide instructional decisions.	Do the materials provide learning goals with opportunities for the teacher and students to identify what they are learning and how their daily learning connects to a longer learning progression?	0 2 4	<p>Every lesson begins with student learning goals. Within the lesson, content and examples are labeled using language based upon the learning goals.</p> <p>The online WebAssign platform allows teachers to have students complete work online for faster review and feedback.</p> <p>The test bank provides the standards and content of each question to guide teacher planning.</p>	
2i. Materials regularly embed activities that engage students in solving and discussing tasks that promote mathematical reasoning and problem-solving which allow multiple entry points and varied solution strategies.	Do the materials support the development of procedures or algorithms as a result of problem solving experiences, allowing for multiple and individualized approaches?	0 1 2	<p>The text regularly teaches and supports students in deciding between multiple viable strategies.</p> <p>In exercise sets, where applicable, students are advised that multiple methods or techniques are viable, or when their answers may differ from others.</p>	

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<p>2j. Materials frequently engage students in making connections among math representations to use as tools for problem-solving and to deepen their understanding of math concepts and procedures.</p>	<p>Do the materials include problems that can be approached from a variety of methods and emphasize connections between representations and context?</p>	<p>0 1 2</p>	<p>Throughout the text, data is presented in multiple forms. Students take data from tables, summaries, or graphical formats, and then manipulate it in multiple ways. As each new learning is introduced, students apply it to all the various models they have previously learned.</p>
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Criterion 2.2 The Actions and Processes of the Oklahoma Academic Standards for Mathematics		The materials provide explicit opportunities for students to demonstrate independent progress to develop proficiency in the Oklahoma Academic Standards.		
Indicators	Guiding Questions	Score	Comments	
2k. Materials include support for teachers to facilitate discourse among students which builds a shared understanding of mathematical ideas through students' analysis and comparison of approaches and arguments.	<ul style="list-style-type: none"> Do the materials include scaffolds for the teacher to model effective mathematical dialogue? Do the materials include resources or strategies to build students' mathematical vocabulary (e.g., stories, pictures, classroom charts). Do the materials include rich mathematical tasks that allow students to construct viable arguments and critique the reasoning of others? 	0 1 2	<p>Throughout each lesson, each example problem contains a worked-out solution accompanied by a brief mathematical explanation of the reasoning. This models the "teacher talk" that will occur in the classroom.</p> <p>Many lessons contain collaborative activities that support students to compare their approaches to the problems.</p> <p>Each chapter contains many suggested projects, which allow for students to work together to demonstrate their learning in mathematical artifacts and in writing.</p>	
2l. The materials use student-relevant questions to assess and advance reasoning and sense-making about important math ideas and relationships.	Do the materials use questions that refer to a variety of student interests and connect mathematical concepts to real-world issues, problems, and contexts?	0 1 2	Each lesson and exercise set include application problems, often based on data from a real statistical study. Examples are often based on engineering, medicine, and social issues.	
		Rating Levels	Sub-Total	Rating

Criterion 2.2 Summary	Exemplifies Quality: 10 - 12 Approaching Quality: 7 - 9 Not Representing Quality: 0 - 6	12 / 12	Exemplifies Quality
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Criterion 2.3 Assessment		The materials provide tools, guidance, and support for teachers to collect, interpret, and act on data about student progress towards the Oklahoma Academic Standards.	
Indicators	Guiding Questions	Score	Comments
2m. The materials provide strategies for gathering information on students' prior knowledge within and across grade levels to guide instruction and differentiation.	Do the materials include strategies, prompts, formative assessment probes, or other guidance that support teachers in gathering information on students' prior knowledge, both within and across grade levels, in order to guide grade-level instruction and differentiation?	0 1 2	The content in the text is largely independent of other high school math courses. While students probably have encountered some of the concepts in previous courses, the text does not require previous content knowledge beyond basic algebra skills.
2n. The materials provide opportunities for ongoing, relevant practice and review for students in learning concepts and skills and receiving feedback.	<ul style="list-style-type: none"> • Do the materials include tasks that ask students to produce models, practice fluency, create arguments, justify their answers, attend to mathematical practices, and make relevant connections? • Do the materials include tasks that offer revision opportunities for students from self-reflection and/or feedback from peers and/or a teacher on the task? 	0 1 2	Answers and explanations of half of all exercise problems are provided at the end of the text. Each chapter ends with a chapter review of important topics and vocabulary, then a series of review problems. The answers for these are also provided to students.

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Criterion 2.3 Assessment	The materials provide tools, guidance, and support for teachers to collect, interpret, and act on data about student progress towards the Oklahoma Academic Standards.		
Indicators	Guiding Questions	Score	Comments
<p>*2o. The materials offer multiple types of assessments including ongoing formative, interim/benchmark, and summative, that clearly denote which academic standards are the focus.</p>	<ul style="list-style-type: none"> Do the materials provide a variety of assessments including ongoing, formative, interim/benchmark, and summative? Do materials denote what standard is being assessed by each item? Are students able to demonstrate their understanding of mathematics through a variety of performance assessments (e.g., posters, projects, videos, skits, conversations)? 	0 2 4	<p>The text provides review exercise sets for all chapters. Each chapter also provides multiple project opportunities.</p> <p>The WebAssign platform includes one interactive lab per chapter, in which students manipulate real data.</p> <p>An Instructor Companion Site contains test banks from which teachers can select questions based on topic.</p> <p>Throughout these resources, there is no reference to specific standards.</p>
<p>2p. The materials encourage students to monitor their own progress and set academic goals.</p>	<ul style="list-style-type: none"> Do materials provide opportunities for students to monitor their own progress (e.g., end-of-section reflection questions, checks-for-understanding, progress monitoring form) ? Do the materials include scaffolds (e.g., guiding questions, graphic organizers) for students to set math learning goal(s) for themselves? 	0 1 2	<p>There are no resources for students aside from the text. The text provides review questions, but no other monitoring or organization techniques.</p>

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Criterion 2.3 Assessment	The materials provide tools, guidance, and support for teachers to collect, interpret, and act on data about student progress towards the Oklahoma Academic Standards.		
Indicators	Guiding Questions	Score	Comments
2q. The assessment materials offer accommodations that allow students to demonstrate their knowledge and skills without changing the content of the assessment.	<ul style="list-style-type: none"> Do materials support the usage of a variety of accommodations that allow the student to demonstrate their knowledge, skills, and abilities? Do materials support the usage of a variety of accommodations that alter the experience including alterations of timing, setting, presentation, and response? Are students presented with assessment tasks that have more than one method or approach for solving? 	0 1 2	The test bank software provides multiple versions of questions, and multiple levels of difficulty. Many problems in the test bank can be solved using multiple methods.
2r. The materials provide explicit guidance for teachers to use evidence of student thinking to assess their progress toward math understanding and to adjust instruction continually in ways that support and extend learning.	<ul style="list-style-type: none"> Do materials include scoring guidance (e.g., rubrics, anchors)? Does the guidance include support for teachers to interpret student performance and suggestions for follow-up? 	0 1 2	The teacher's answer keys provide full answer explanations.
Criterion 2.3 Summary	Rating Levels	Sub-Total	Rating
	Exemplifies Quality: 12 - 14 Approaching Quality: 8 - 11 Not Representing Quality: 0 - 7	14 / 14	Exemplifies Quality

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Gateway 2 Points Available	Rating Levels	Gateway 2 Points Achieved	Gateway 2 Rating
40	Exemplifies Quality: 32 - 40	40 /40	Exemplifies Quality
	Approaching Quality: 21 - 31		
	Not Representing Quality: 0 - 20		
Gateway 2 Comments			

Gateway 3: Teacher and Student Supports and Usability

Materials support teachers to fully utilize the curriculum and understand the skills and learning of their students.

To determine the Gateway rating, educators use evidence gathered from the instructional materials to score indicators related to each criterion

- ❑ **Materials must receive a score of Exemplifies Quality or Approaching Quality in Gateway 2 in order to be reviewed in Gateway 3.**

Gateway 3 Overview		
Criterion	Indicators	Available Points
Criterion 3.1: Differentiation, Scaffolding, and Supports for All Learners The materials give all students extensive opportunities and support to explore key concepts.	3a. - 3g.	10
Criterion 3.2: Teacher Planning and Learning for Success with the Oklahoma Academic Standards for Mathematics The materials provide teachers with guidance to build their own knowledge and to give all students extensive opportunities and support to explore key concepts.	3h. - 3i.	10
		20

Criterion 3.1 Differentiation, Scaffolding, and Supports for All Learners		The materials give all students extensive opportunities and support to explore key concepts.		
Indicators	Guiding Questions	Score	Comments	
3a. The materials sequence math tasks in a way that is intentional and supports student learning.	<ul style="list-style-type: none"> • Are the sequencing of assignments intentional in development (e.g., concrete before abstract, logical flow of material)? • Do the materials provide problems and exercises that intentionally builds student background knowledge and enables students to apply what they have learned in past lessons and grade levels to develop proficiency in new mathematics concepts? 	0 1 2	<p>Each chapter is structured in a logical manner. Content is connected to previous learnings, and each new topic connects to those before.</p> <p>Within each lesson, concepts are presented with a meaningful introduction followed by several new learnings, each of which are supported with at least one worked out example. Lessons often contain checklists, summaries, guidelines, and other useful structures to help students create understanding.</p>	
3b. Manipulatives or models both virtual and physical, are faithful, accurate, and appropriate representations of the mathematical objects they represent and connected to a variety of math tasks found in the materials.	<ul style="list-style-type: none"> • Are the manipulatives or models consistent representations of the mathematical objects? • Are the manipulatives or models connected to a variety of math tasks found in the materials? 	0 1 2	<p>Throughout the text, images and graphics are used to support concepts. Students are taught how to create models as part of their problem-solving process.</p> <p>The text provides examples of data that can be collected with physical manipulatives or with computer-based simulations.</p> <p>The text regularly provides Tech Notes, which show how to use a variety of calculators or software to accomplish the calculations.</p>	

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<p>3c. The materials are presented in an organized and visually stimulating way that supports students in engaging thoughtfully with the subject.</p>	<ul style="list-style-type: none">• Do the materials maintain a consistent layout for each lesson?• Are the representations and models supportive of student learning and engagement without being visually distracting?	<p>Narrative Evidence Only</p>	<p>Each lesson follows a structure in which standards are presented, a new learning is introduced, and examples are worked. The complexity builds throughout each lesson.</p> <p>Lessons, examples, and practice exercises are supported with photographs and diagrams.</p>
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Criterion 3.1 Differentiation, Scaffolding, and Supports for All Learners		The materials give all students extensive opportunities and support to explore key concepts.	
Indicators	Guiding Questions	Score	Comments
3d. The materials incorporate a glossary, footnotes, recordings, graphics, and/or other features that aid students in using the materials to progress understanding of mathematical concepts.	Do the materials include features (e.g., glossaries, footnotes, recordings, pictures, charts, tables) that aid students and teachers in using them effectively?	0 1 2	<p>The front papers of the text contain reference tables for the standard normal and student's t distributions, as well as common critical values and frequently used formulas. An extensive index is included.</p> <p>The online WebAssign platform includes many content and review videos, which teachers can opt to share with students.</p>
3e. The materials include opportunities for teachers to personalize learning for all students.	<ul style="list-style-type: none"> Do the materials integrate tangible and/or digital interactive tools, manipulatives/objects, and/or dynamic mathematics software in ways that engage students in mathematical actions and processes and support differentiation? Do the materials provide supporting resources for teachers to adapt lessons or activities based on student need and experiences? 	0 1 2	<p>The text covers content in great depth, with many different examples and applications of concepts. This allows teachers to select the topics and examples to be used, based on the needs of students.</p>
3f. Any digital materials are web-based and compatible with multiple internet browsers (e.g., Internet Explorer, Firefox, Google Chrome). In addition, materials are “platform neutral” (i.e., are compatible with multiple operating systems and are not proprietary to any single platform) and allow the use of tablets and mobile devices.	<ul style="list-style-type: none"> Are digital materials (either included as part of the comprehensive materials or as a part of a digital curriculum) web-based and compatible with multiple internet browsers? Are materials “platform neutral”? 	Narrative Evidence	<p>The online resources and materials are compatible with multiple internet browsers and platform neutral.</p> <p>A student eTextbook app is available via a smartphone app that is available for Apple and Android devices.</p>

Criterion 3.1 Differentiation, Scaffolding, and Supports for All Learners	The materials give all students extensive opportunities and support to explore key concepts.		
Indicators	Guiding Questions	Score	Comments
3g. Materials provide teachers with strategies for meeting the needs of a range of learners.	<ul style="list-style-type: none"> Do the materials provide appropriate supports, scaffolds, and/or accommodations for all students, including exceptional populations and diverse learners (e.g., learners with IEPs, heritage language learners, multilingual learners, and gifted learners) that will support their regular and active participation in learning mathematics? Do the materials provide opportunities for teachers to use a variety of grouping strategies for regular and intervention instruction (e.g., individual, small group, whole group)? If the materials include technology, it provides opportunities for teachers and/or students to collaborate with each other (e.g., websites, discussion groups, webinars)? 	0 1 2	Throughout the text, discussion prompts are provided Critical Thinking problems. These provide thoughtful questions that are relevant to the material and can be used to generate discussion prompts.
Criterion 3.1 Summary	Rating Levels	Sub-Total	Rating
	Exemplifies Quality: 8 - 10 Approaching Quality: 6 - 7 Not Representing Quality: 0 - 5	10 / 10	Exemplifies Quality

Criterion 3.2 Teacher Planning and Learning for Success with the Oklahoma Academic Standards		The materials provide teachers with guidance to build their own knowledge and to give all students extensive opportunities and support to explore key concepts.		
Indicators	Guiding Questions	Score	Comments	
<p>3h. The materials support teachers in planning and delivering effective instruction by providing:</p> <ul style="list-style-type: none"> • Techniques to guide students' mathematical development (e.g., question stems, facilitation guides, suggestions for differentiation). • Common student errors and misconceptions with ways to identify and address these errors and misconceptions. 	<p>Are there embedded resources that explain common misconceptions and how the teacher can navigate through, or leverage, the misconception to progress learner understanding?</p>	<p>0 1 2</p>	<p>Throughout the text, special Comment paragraphs address misunderstandings or mistakes, or specific ways to view how to understand a problem.</p>	
<p>*3i. The materials include a teacher's edition that contains:</p> <ul style="list-style-type: none"> • Full, adult-level explanations and examples of mathematics concepts in each lesson. • Ample and useful annotations. • Suggestions for how to present the content in the student edition and in any supplemental materials. • Guidance for the use of embedded technology to support and enhance student learning (when applicable). 	<ul style="list-style-type: none"> • Are there overview sections and/or annotations that contain narrative information about the math content and/or ancillary documents that will assist the teacher in presenting the student material, understanding the standards, and allowing for seamless transitions of that knowledge of student learning? • If technology support is embedded, are there links that will enhance the learning for all students? 	<p>0 2 4</p>	<p>Each chapter comes with a separate document that explains briefly the overview of the chapter and how it connects with the rest of the course.</p> <p>A separate file does provide full solutions to all problems in the text.</p> <p>Teachers are provided with editable PowerPoint files for every lesson, which provide a starting structure for how to present content.</p>	

Criterion 3.2 Teacher Planning and Learning for Success with the Oklahoma Academic Standards		The materials provide teachers with guidance to build their own knowledge and to give all students extensive opportunities and support to explore key concepts.		
Indicators	Guiding Questions	Score	Comments	
<p>3j. The materials include an outline and justification of its contents, including:</p> <ul style="list-style-type: none"> ● An explanation of the role of specific grade-level mathematics in the context of the overall mathematics curriculum for pre-kindergarten through high school. ● A list of lessons cross-referencing the academic standards addressed and providing an estimated instructional time for each lesson, chapter, and unit (i.e., pacing guide). ● Explanations of the instructional approaches of the program and identification of research-based strategies used in the materials. 	<ul style="list-style-type: none"> ● Are there chapter or lesson overviews that explain the progression of the content and how this specific course connects to previous and upcoming courses? ● Is there clear documentation that aligns standards to lessons, chapters, units, and/or topics? ● Is there clear documentation that provides estimated instructional time for lessons, chapters, units, and/or topics? ● Do the materials contain an explanation of the instructional approaches to the program? ● Do the materials contain research-based strategies? Are these strategies identified? 	0 1 2	Each lesson ends with a summary of what was learned. Each chapter also contains a detailed summary.	
<p>3k. The materials provide strategies for informing families about the mathematics program and suggestions for how they can help support student progress and achievement.</p>	<ul style="list-style-type: none"> ● Do the materials include strategies to inform families about the mathematical program and how they can support student progress? ● Do the materials contain suggestions for how parents or caregivers can support student progress and achievement? 	0 1 2	There is no material provided aimed at families or caregivers.	

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	Rating Levels	Sub-Total	Rating
Criterion 3.2 Summary	Exemplifies Quality: 8 - 10 Approaching Quality: 6 - 7 Not Representing Quality: 0 - 5	10 / 10	Exemplifies Quality

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Gateway 3 Points Available	Rating Levels	Gateway 3 Points Achieved	Gateway 3 Rating
<p style="text-align: center;">20</p>	<p>Exemplifies Quality: 16 - 20</p>	<p>20 /20</p>	<p>Exemplifies Quality</p>
	<p>Approaching Quality: 11 - 15</p>		
	<p>Not Representing Quality: 0 - 10</p>		