TEXTBOOK REVIEW FORM

MATHEMATICS

GRADE 8

Textbook/Series: _____

Edition: _____ Copyright: _____ Publisher: _____

Reviewed by: _____

This form was based in part on:

A project of
The Charles A. Dana Center
At the University of Texas at Austin

Adapted for Alabama State Department of Education

STANDARDS FOR MATHEMATICAL PRACTICE – MATHEMATICS – GRADE K-12 – OVERALL

Textbook/Series: _____

Edition: _____ Copyright: _____ Publisher: _____

OVERALL RATING:	Weak (1-2) Moderate (2-3) Strong (3-4)	**Comments:**	
1. Make sense of problems and preserve in solving them. **Summary/Justification/Evidence:**	Weak (1-2) Moderate (2-3) Strong (3-4)	2. Reason abstractly and quantitatively. **Summary/Justification/Evidence**	Weak (1-2) Moderate (2-3) Strong (3-4)
3. Construct viable arguments and critique the reasoning of others. **Summary/Justification/Evidence:**	Weak (1-2) Moderate (2-3) Strong (3-4)	4. Model with mathematics. **Summary/Justification/Evidence:**	Weak (1-2) Moderate (2-3) Strong (3-4)
5. Use appropriate tools strategically. **Summary/Justification/Evidence:**	Weak (1-2) Moderate (2-3) Strong (3-4)	6. Attend to precision. **Summary/Justification/Evidence:**	Weak (1-2) Moderate (2-3) Strong (3-4)
7. Look for and make use of structure. **Summary/Justification/Evidence:**	Weak (1-2) Moderate (2-3) Strong (3-4)	8. Look for and express regularity in repeated reasoning. **Summary/Justification/Evidence:**	Weak (1-2) Moderate (2-3) Strong (3-4)

Weak: This is the lowest rating a book can receive. In general, a book that was rated as "weak" scored mostly 1s and 2s on a 4-point scale.

Moderate: This is the middle rating a book can receive. In general, a book that was rated as "moderate" scored mostly 2s and 3s on a 4-point scale.

S**trong**: This is the highest rating a book can receive. In general, a book that was rated as "strong" scored mostly 3s and 4s on a 4-point scale.

Documenting Alignment to the Standards for Mathematical Practice

Mathematically proficient students:

1. Make sense of problems and persevere in solving them.

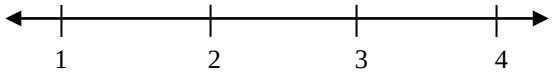
These students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They analyze givens, constraints, relationships, and goals. They make conjectures about the form and meaning of the solution and plan a solution pathway rather than simply jumping into a solution attempt. These students consider analogous problems and try special cases and simpler forms of the original problem in order to gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Older students might, depending on the context of the problem, transform algebraic expressions or change the viewing window on their graphing calculator to obtain the information they need. Mathematically proficient students can explain correspondences between equations, verbal descriptions, tables, and graphs or draw diagrams of important features and relationships, graph data, and search for regularity or trends. Younger students might rely on using concrete objects or pictures to help conceptualize and solve a problem. Mathematically proficient students check their answers to problems using a different method, and they continually ask themselves, "Does this make sense?" They can understand the approaches of others to solve complex problems and identify correspondences between different approaches.

Indicate the chapter(s), sections, and/or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating



Documenting Alignment to the Standards for Mathematical Practice

Mathematically proficient students:

2. Reason abstractly and quantitatively.

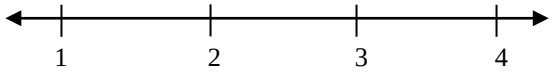
Mathematically proficient students make sense of quantities and their relationships in problem situations. They bring two complementary abilities to bear on problems involving quantitative relationships. One is the ability to *decontextualize*, to abstract a given situation and represent it symbolically and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents. The second is the ability to *contextualize*, to pause as needed during the manipulation process in order to probe into the referents for the symbols involved. Quantitative reasoning entails habits of creating a coherent representation of the problem at hand; considering the units involved; attending to the meaning of quantities, not just how to compute them; and knowing and flexibly using different properties of operations and objects.

Indicate the chapter(s), sections, and/or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating



Documenting Alignment to the Standards for Mathematical Practice

Mathematically proficient students:

3. Construct viable arguments and critique the reasoning of others.

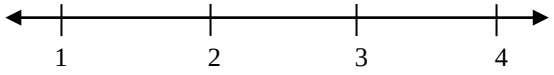
These students understand and use stated assumptions, definitions, and previously established results in constructing arguments. They make conjectures and build a logical progression of statements to explore the truth of their conjectures. They are able to analyze situations by breaking them into cases, and can recognize and use counterexamples. These students justify their conclusions, communicate them to others, and respond to the arguments of others. They reason inductively about data, making plausible arguments that take into account the context from which the data arose. Mathematically proficient students are also able to compare the effectiveness of two plausible arguments; distinguish correct logic or reasoning from that which is flawed; and, if there is a flaw in an argument, explain what it is. Elementary students can construct arguments using concrete referents such as objects, drawings, diagrams, and actions. Such arguments can make sense and be correct, even though they are not generalized or made formal until the middle or upper grades. Later, students learn to determine domains to which an argument applies. Students at all grades can listen to or read the arguments of others, decide whether they make sense, and ask useful questions to clarify or improve the arguments.

Indicate the chapter(s), sections, and/or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating



Documenting Alignment to the Standards for Mathematical Practice

Mathematically proficient students:

4. Model with mathematics.

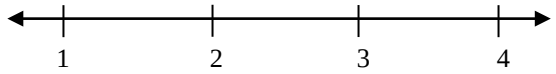
These students can apply the mathematics they know to solve problems arising in everyday life, society, and the workplace. In early grades, this might be as simple as writing an addition equation to describe a situation. In middle grades, students might apply proportional reasoning to plan a school event or analyze a problem in the community. By high school, students might use geometry to solve a design problem or use a function to describe how one quantity of interest depends on another. Mathematically proficient students who can apply what they know are comfortable making assumptions and approximations to simplify a complicated situation, realizing that these may need revision later. They are able to identify important quantities in a practical situation and map their relationships using such tools as diagrams, two-way tables, graphs, flowcharts, and formulas and can analyze those relationships mathematically to draw conclusions. They routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose.

Indicate the chapter(s), sections, and/or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating



Documenting Alignment to the Standards for Mathematical Practice

Mathematically proficient students:

5. Use appropriate tools strategically.

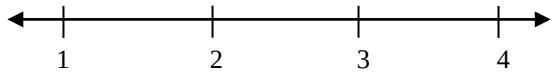
Mathematically proficient students consider available tools when solving a mathematical problem. These tools might include pencil and paper, concrete models, a ruler, a protractor, a calculator, a spreadsheet, a computer algebra system, a statistical package, or dynamic geometry software. Proficient students are sufficiently familiar with tools appropriate for their grade or course to make sound decisions about when each of these tools might be helpful, recognizing both the insight to be gained and their limitations. For example, mathematically proficient high school students analyze graphs of functions and solutions generated using a graphing calculator. They detect possible errors by strategically using estimation and other mathematical knowledge. When making mathematical models, they know that technology can enable them to visualize the results of varying assumptions, explore consequences, and compare predictions with data. Mathematically proficient students at various grade levels are able to identify relevant external mathematical resources, such as digital content located on a Web site, and use these to pose or solve problems. They are able to use technological tools to explore and deepen their understanding of concepts.

Indicate the chapter(s), sections, and/or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating



Documenting Alignment to the Standards for Mathematical Practice

Mathematically proficient students:

6. Attend to precision.

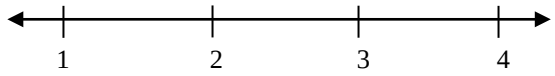
These students try to communicate precisely to others. They try to use clear definitions in discussion with others and in their own reasoning. They state the meaning of the symbols they choose, including using the equal sign consistently and appropriately. Mathematically proficient students are careful about specifying units of measure and labeling axes to clarify the correspondence with quantities in a problem. They calculate accurately and efficiently, and express numerical answers with a degree of precision appropriate for the problem context. In the elementary grades, students give carefully formulated explanations to each other. By the time they reach high school they have learned to examine claims and make explicit use of definitions.

Indicate the chapter(s), sections, and/or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating



Documenting Alignment to the Standards for Mathematical Practice

Mathematically proficient students:

7. Look for and make use of structure.

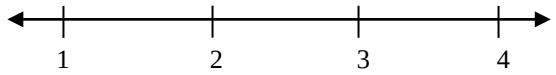
Mathematically proficient students look closely to discern a pattern or structure. Young students, for example, might notice that three and seven more is the same amount as seven and three more, or they may sort a collection of shapes according to how many sides the shapes have. Later, students will see 7×8 equals the well-remembered $7 \times 5 + 7 \times 3$, in preparation for learning about the distributive property. In the expression $x^2 + 9x + 14$, older students can see the 14 as 2×7 and the 9 as $2 + 7$. They recognize the significance of an existing line in a geometric figure and can use the strategy of drawing an auxiliary line for solving problems. These students also can pause and reflect for an overview and shift perspective. They can observe the complexities of mathematics, such as some algebraic expressions as single objects or as being composed of several objects. For example, they can see $5 - 3(x - y)^2$ as 5 minus a positive number times a square and use that to realize that its value cannot be more than 5 for any real numbers x and y.

Indicate the chapter(s), sections, and/or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating



Documenting Alignment to the Standards for Mathematical Practice

Mathematically proficient students:

8. Look for and express regularity in repeated reasoning.

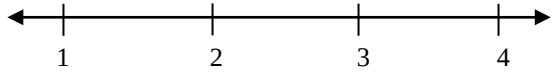
They notice if calculations are repeated, and look both for general methods and for shortcuts. Upper elementary students might notice when dividing 25 by 11 that they are repeating the same calculations over and over again and conclude they have a repeating decimal. By paying attention to the calculation of slope as they repeatedly check whether points are on the line through (1, 2) with slope 3, middle school students might abstract the equation $(y – 2)/(x – 1) = 3$. Noticing the regularity in the way terms cancel when expanding $(x – 1)(x + 1)$, $(x – 1)(x^2 + x + 1)$, and $(x – 1)(x^3 + x^2 + x + 1)$ might lead them to the general formula for the sum of a geometric series. As students work to solve a problem, mathematically proficient students maintain oversight of the process, while attending to the details and continually evaluate the reasonableness of their intermediate results.

Indicate the chapter(s), sections, and/or page(s) reviewed.

Portions of the mathematical practice that are missing or not well developed in the instructional materials (if any):

Summary/Justification/Evidence

Overall Rating



TEXTBOOK REVIEW FORM – MATHEMATICS – OVERALL
MATHEMATICAL STANDARDS & OTHER CRITERIA – GRADE 8

Textbook/Series: _____

Edition: _____ Copyright: _____ Publisher: _____

OVERALL RATING:	Weak (1-2) Moderate (2-3) Strong (3-4)	Important Mathematical Ideas: **Summary/Justification/Evidence:**	Weak (1-2) Moderate (2-3) Strong (3-4)
Skills and Procedures: **Summary/Justification/Evidence:**	Weak (1-2) Moderate (2-3) Strong (3-4)	Mathematical Relationships: **Summary/Justification/Evidence**	Weak (1-2) Moderate (2-3) Strong (3-4)
Content: **Summary/Justification/Evidence:**	Weak (1-2) Moderate (2-3) Strong (3-4)	Instruction: **Summary/Justification/Evidence:**	Weak (1-2) Moderate (2-3) Strong (3-4)
Assessment: **Summary/Justification/Evidence:**	Weak (1-2) Moderate (2-3) Strong (3-4)	Technology: **Summary/Justification/Evidence:**	Weak (1-2) Moderate (2-3) Strong (3-4)

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Number Systems and Operations

Understand that the real number system is composed of rational and irrational numbers.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
1. Define the real number system as composed of rational and irrational numbers. a. Explain that every number has a decimal expansion; for rational numbers, the decimal expansion repeats or terminates. b. Convert a decimal expansion that repeats into a rational number. **Indicate the chapter(s), sections, and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

Number Systems and Operations

Understand that the real number system is composed of rational and irrational numbers.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
2. Locate rational approximations of irrational numbers on a number line, compare their sizes, and estimate the values of the irrational numbers. **Indicate the chapter(s), sections, and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** **Overall Rating** 1 2 3 4

Algebra and Functions

Apply concepts of integer exponents and radicals.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
3. Develop and apply properties of integer exponents to generate equivalent numerical and algebraic expressions. **Indicate the chapter(s), sections, and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

Algebra and Functions

Apply concepts of integer exponents and radicals.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
4. Use square root and cube root symbols to represent solutions to equations. a. Evaluate square roots of perfect squares (less than or equal to 225) and cube roots of perfect cubes (less than or equal to 1000). b. Explain that the square root of a non-perfect square is irrational. **Indicate the chapter(s), sections, and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** **Overall Rating** 1 2 3 4

Algebra and Functions

Apply concepts of integer exponents and radicals.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
5. Estimate and compare very large or very small numbers in scientific notation. **Indicate the chapter(s), sections, and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

Algebra and Functions

Apply concepts of integer exponents and radicals.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
6. Perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. a. Use scientific notation and choose units of appropriate size for measurements of very large or very small quantities. b. Interpret scientific notation that has been generated by technology. **Indicate the chapter(s), sections, and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

Algebra and Functions

Analyze the relationship between proportional and non-proportional situations.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
7. Determine whether a relationship between two variables is proportional or non-proportional. **Indicate the chapter(s), sections, and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

Algebra and Functions

Analyze the relationship between proportional and non-proportional situations.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
8. Graph proportional relationships. a. Interpret the unit rate of a proportional relationship, describing the constant of proportionality as the slope of the graph which goes through the origin and has the equation $y = mx$ where m is the slope. **Indicate the chapter(s), sections, and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** **Overall Rating** 1 2 3 4

Algebra and Functions

Analyze the relationship between proportional and non-proportional situations.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
9. Interpret $y = mx + b$ as defining a linear equation whose graph is a line with m as the slope and b as the y-intercept. a. Use similar triangles to explain why the slope m is the same between any two distinct points on a non-vertical line in a coordinate plane. b. Given two distinct points in a coordinate plane, find the slope of the line containing the two points and explain why it will be the same for any two distinct points on the line. c. Graph linear relationships, interpreting the slope as the rate of change of the graph and the y-intercept as the initial value. d. Given that the slopes for two different sets of points are equal, demonstrate that the linear equations that include those two sets of points may have different y-intercepts.	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence**
Indicate the chapter(s), sections, and/or page(s) reviewed.	**Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):**
	Overall Rating 1 2 3 4

Algebra and Functions

Analyze the relationship between proportional and non-proportional situations.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
10. Compare proportional and non-proportional linear relationships represented in different ways (algebraically, graphically, numerically in tables, or by verbal descriptions) to solve real-world problems. **Indicate the chapter(s), sections, and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

Algebra and Functions

Analyze and solve linear equations and systems of two linear equations.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
11. Solve multi-step linear equations in one variable, including rational number coefficients, and equations that require using the distributive property and combining like terms. a. Determine whether linear equations in one variable have one solution, no solution, or infinitely many solutions of the form $x = a$, $a = a$, or $a = b$ (where a and b are different numbers). b. Represent and solve real-world and mathematical problems with equations and interpret each solution in the context of the problem. **Indicate the chapter(s), sections, and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

Algebra and Functions

Analyze and solve linear equations and systems of two linear equations.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
12. Solve systems of two linear equations in two variables by graphing and substitution. a. Explain that the solution(s) of systems of two linear equations in two variables corresponds to points of intersection on their graphs because points of intersection satisfy both equations simultaneously. b. Interpret and justify the results of systems of two linear equations in two variables (one solution, no solution, or infinitely many solutions) when applied to real-world and mathematical problems. **Indicate the chapter(s), sections, and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** **Overall Rating** 1 2 3 4

Algebra and Functions

Explain, evaluate, and compare functions.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
13. Determine whether a relation is a function, defining a function as a rule that assigns to each input (independent value) exactly one output (dependent value), and given a graph, table, mapping, or set of ordered pairs. **Indicate the chapter(s), sections, and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** **Overall Rating** 1 2 3 4

Algebra and Functions

Explain, evaluate, and compare functions.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
14. Evaluate functions defined by a rule or an equation, given values for the independent variable. **Indicate the chapter(s), sections, and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

Algebra and Functions

Explain, evaluate, and compare functions.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
15. Compare properties of functions represented algebraically, graphically, numerically in tables, or by verbal descriptions. a. Distinguish between linear and non-linear functions. **Indicate the chapter(s), sections, and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

Algebra and Functions

Use functions to model relationships between quantities.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
16. Construct a function to model a linear relationship between two variables. a. Interpret the rate of change (slope) and initial value of the linear function from a description of a relationship or from two points in a table or graph. **Indicate the chapter(s), sections, and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

Algebra and Functions

Use functions to model relationships between quantities.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
17. Analyze the relationship (increasing or decreasing, linear or non-linear) between two quantities represented in a graph. **Indicate the chapter(s), sections, and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** **Overall Rating** 1 2 3 4

Data Analysis, Statistics, and Probability

Investigate patterns of association in bivariate data.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
18. Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities, describing patterns in terms of positive, negative, or no association, linear and non-linear association, clustering, and outliers. **Indicate the chapter(s), sections, and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

Data Analysis, Statistics, and Probability

Investigate patterns of association in bivariate data.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
19. Given a scatter plot that suggests a linear association, informally draw a line to fit the data, and assess the model fit by judging the closeness of the data points to the line. **Indicate the chapter(s), sections, and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

Data Analysis, Statistics, and Probability

Investigate patterns of association in bivariate data.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
20. Use a linear model of a real-world situation to solve problems and make predictions. a. Describe the rate of change and *y*-intercept in the context of a problem using a linear model of a real-world situation. **Indicate the chapter(s), sections, and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

Data Analysis, Statistics, and Probability

Investigate patterns of association in bivariate data.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
21. Construct and interpret a two-way table summarizing data on two categorical variables collected from the same subjects, using relative frequencies calculated for rows or columns to describe possible associations between the two variables. **Indicate the chapter(s), sections, and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

Geometry and Measurement

Understand congruence and similarity using physical models or technology.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
22. Verify experimentally the properties of rigid motions (rotations, reflections, and translations): lines are taken to lines, and line segments are taken to line segments of the same length; angles are taken to angles of the same measure; and parallel lines are taken to parallel lines. a. Given a pair of two-dimensional figures, determine if a series of rigid motions maps one figure onto the other, recognizing that if such a sequence exists the figures are congruent; describe the transformation sequence that verifies a congruence relationship. **Indicate the chapter(s), sections, and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** **Overall Rating** 1 2 3 4

Geometry and Measurement

Understand congruence and similarity using physical models or technology.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
23. Use coordinates to describe the effect of transformations (dilations, translations, rotations, and reflections) on two- dimensional figures. **Indicate the chapter(s), sections, and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** **Overall Rating** 1 2 3 4

Geometry and Measurement

Understand congruence and similarity using physical models or technology.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
24. Given a pair of two-dimensional figures, determine if a series of dilations and rigid motions maps one figure onto the other, recognizing that if such a sequence exists the figures are similar; describe the transformation sequence that exhibits the similarity between them. **Indicate the chapter(s), sections, and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

Geometry and Measurement

Analyze parallel lines cut by a transversal.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
25. Analyze and apply properties of parallel lines cut by a transversal to determine missing angle measures. a. Use informal arguments to establish that the sum of the interior angles of a triangle is 180 degrees. **Indicate the chapter(s), sections, and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

Geometry and Measurement

Understand and apply the Pythagorean Theorem.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
26. Informally justify the Pythagorean Theorem and its converse. **Indicate the chapter(s), sections, and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

Geometry and Measurement

Understand and apply the Pythagorean Theorem.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
27. Apply the Pythagorean Theorem to find the distance between two points in a coordinate plane. **Indicate the chapter(s), sections, and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

Geometry and Measurement

Understand and apply the Pythagorean Theorem.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
28. Apply the Pythagorean Theorem to determine unknown side lengths of right triangles, including real-world applications **Indicate the chapter(s), sections, and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence**
	Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):
	Overall Rating 1 2 3 4

Geometry and Measurement

Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
29. Informally derive the formulas for the volume of cones and spheres by experimentally comparing the volumes of cones and spheres with the same radius and height to a cylinder with the same dimensions. **Indicate the chapter(s), sections, and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** **Overall Rating** 1 2 3 4

Geometry and Measurement

Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres.	**Summary and documentation of how the domain, cluster, and standard are met. Cite examples from the materials.**
30. Use formulas to calculate the volumes of three-dimensional figures (cylinders, cones, and spheres) to solve real- world problems. **Indicate the chapter(s), sections, and/or page(s) reviewed.**	Important Mathematical Ideas 1 2 3 4 Skills and Procedures 1 2 3 4 Mathematical Relationships 1 2 3 4 **Summary/Justification/Evidence** **Portions of the domain, cluster, and standard that are missing or not well developed in the instructional materials (if any):** **Overall Rating** 1 2 3 4

TEXTBOOK REVIEW FORM – MATHEMATICS – ADDITIONAL CRITIERIA AND INDICATORS

Documenting Alignment to
Additional Criteria and Indicators

Content

Criteria and Indicators	**Summary and documentation of how the additional criteria and indicators are met. Cite examples from the materials.**
1. Content is designed for students of varied abilities and understanding.	**Overall Rating** 1 2 3 4
2. Content is free of bias and/or controversial information.	**Overall Rating** 1 2 3 4
3. Content includes strategies for vocabulary instruction and graphic organizers.	**Overall Rating** 1 2 3 4
4. Content includes assignments that encourage integration of other content areas to support a math concept/skill.	**Overall Rating** 1 2 3 4
Indicate the chapter(s), sections, and/or page(s) reviewed.	**Summary/Justification/Evidence:**

TEXTBOOK REVIEW FORM – MATHEMATICS – ADDITIONAL CRITIERIA AND INDICATORS

Documenting Alignment to
Additional Criteria and Indicators

Technology

Criteria and Indicators	**Summary and documentation of how the additional criteria and indicators are met. Cite examples from the materials.**
1. Technology support and suggestions for appropriate use of multimedia resources are provided.	**Overall Rating** 1 2 3 4
2. Technology is integrated with student activities so that students collect, organize, analyze, and present data.	**Overall Rating** 1 2 3 4
3. Textbook and supplemental Contents are available online and/or on CD-ROM.	**Overall Rating** 1 2 3 4
Indicate the chapter(s), sections, and/or page(s) reviewed.	**Summary/Justification/Evidence:**

TEXTBOOK REVIEW FORM – MATHEMATICS – ADDITIONAL CRITIERIA AND INDICATORS

Documenting Alignment to
Additional Criteria and Indicators

Assessment

Criteria and Indicators	**Summary and documentation of how the additional criteria and indicators are met. Cite examples from the materials.**
1. Some assessments are designed to measure student understanding above the knowledge level.	**Overall Rating** 1 2 3 4
2. Guidance is provided to teacher regarding how assessment information can be used to inform instruction.	**Overall Rating** 1 2 3 4
3. Rubrics are provided for grading some assignments.	**Overall Rating** 1 2 3 4
4. Some opportunities are provided for students to check their own understanding.	**Overall Rating** 1 2 3 4
Indicate the chapter(s), sections, and/or page(s) reviewed.	**Summary/Justification/Evidence:**

TEXTBOOK REVIEW FORM – MATHEMATICS – ADDITIONAL CRITIERIA AND INDICATORS

Documenting Alignment to
Additional Criteria and Indicators

Assessment (Continued)

Criteria and Indicators	**Summary and documentation of how the additional criteria and indicators are met. Cite examples from the materials.**
5. Assessment activities examine the extent to which students can apply information to situations that require reasoning and creative thinking.	**Overall Rating** 1 2 3 4
6. Multiple means of assessments are used, informal as well as formal.	**Overall Rating** 1 2 3 4
7. Conceptual understanding and procedural knowledge are frequently assessed through tasks that ask students to apply information about a given concept in novel situations.	**Overall Rating** 1 2 3 4
Indicate the chapter(s), sections, and/or page(s) reviewed.	**Summary/Justification/Evidence:**

TEXTBOOK REVIEW FORM – MATHEMATICS – ADDITIONAL CRITIERIA AND INDICATORS

Documenting Alignment to
Additional Criteria and Indicators

Instruction

Criteria and Indicators	**Summary and documentation of how the additional criteria and indicators are met. Cite examples from the materials.**
1. Teacher guide provides suggestions for how to demonstrate/model skills or use of knowledge.	**Overall Rating** 1 2 3 4
2. Teacher guide offers alternative instructional strategies for advanced learners, struggling learners, ELL and Sp. Ed.	**Overall Rating** 1 2 3 4
3. Teacher guide suggests multiple opportunities for students to demonstrate understanding.	**Overall Rating** 1 2 3 4
4. Teacher guide provides opportunities for guided practice and scaffolded support.	**Overall Rating** 1 2 3 4
5. Teacher guide includes suggestions to diagnose student errors, explanations of how these errors may be corrected, and how to further develop student ideas.	**Overall Rating** 1 2 3 4
Indicate the chapter(s), sections, and/or page(s) reviewed.	**Summary/Justification/Evidence:**