NEW MEXICO
Public Education Department

F.6 - Grade 6 Math

PUBLISHER/PROVIDER MATERIAL INFORMATION (TO BE COMPLETED BY PUBLISHER/PROVIDER)			
Publisher/Provider Name/Imprint:		Grade(s):	
Title of Student Edition:		Student Edition ISBN:	
Title of Teacher Edition:		Teacher Edition ISBN:	
Title of SE Workbook:		SE Workbook ISBN:	

PUBLISHER/PROVIDER CITATION VIDEO: Reviewer must view video before starting the review of this set of materials.			
Citation Video Link:			
Citation video certification:	I certify that I have viewed the citation video for this specific publisher and set of materials.		
Digital Material Log In: (Include ONLY if submitting digital materials as part of the review set listed above.)	Website:	Username:	Password:

PUBLISHER/PROVIDER INSTRUCTIONS:

• Publisher/Provider citations for this section will refer to the **Teacher Edition (teacher-facing core material)**. The cited Teacher Edition should correspond with the title and ISBN entered on the Form F cover page, whether in print, online, or both. The review set submitted to the summer review institute should also correspond with what is cited on the Form F. If the review set is an online platform only, then that is what should be cited on the Form F and submitted for review by the review teams. If the review set is in print only, then that is what should be cited on the Form F and submitted for review by the review teams.

• For this section, the publisher/provider will enter one citation per math content standard in Column D. Each citation should direct the reviewer to a specific location in the materials that best meets the standard. The citations should be concise and should allow the reviewer to easily determine that all components of the standard have been met. Each citation should cover no more than 3 pages within the materials.

 o Column D: Enter one citation in Column D from the **Teacher Edition (teacher-facing core material)**. Each citation should direct the reviewer to a specific location in the materials that best meets the standard. **If necessary,** you may enter multiple, **targeted** citations in order to address standards with multiple components. Use as few citations as needed to meet the full intent of the standard. Your citations should be concise and should allow the reviewer to easily determine that the full intent and all components of the standard have been met.

  o Any grayed out cells do not require a citation.

 o Column E: The material will be scored for alignment with each standard as "Meets expectations", "Partially meets expectations", or "Does not meet expectations" based on the citation provided.

  o NOTE: You may not use a citation more than once across ALL sections of the rubric.

Criteria #	Standard	F.6 Grade 6 Math Standards Review	Publisher/Provider Citation from Teacher Edition	Score	If Scored D: Reviewer's Evidence for Publisher Citation	Reviewer Citation from Student Edition/Workbook	Score	Required: Reviewer's Evidence	Comments, other citations, notes
DOMAIN: 6.RP - Ratios and Proportional Relationships									
Cluster:	**Understand ratio concepts and use ratio reasoning to solve problems.**								
1	6.RP.1	Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities. *For example, "The ratio of wings to beaks in the bird house at the zoo was 2:1, because for every 2 wings there was 1 beak." "For every vote candidate A received, candidate C received nearly three votes."*							
2	6.RP.2	Understand the concept of a unit rate *a/b* associated with a ratio *a:b* with *b ≠* 0, and use rate language in the context of a ratio relationship. *For example, "This recipe has a ratio of 3 cups of flour to 4 cups of sugar, so there is 3/4 cup of flour for each cup of sugar." "We paid $75 for 15 hamburgers, which is a rate of $5 per hamburger."*							
3	6.RP.3	Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.							
4	6.RP.3.a	Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios.							
5	6.RP.3.b	Solve unit rate problems including those involving unit pricing and constant speed. *For example, if it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?*							
6	6.RP.3.c	Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity); solve problems involving finding the whole, given a part and the percent.							
7	6.RP.3.d	Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.							
DOMAIN: 6.NS - The Number System									
Cluster:	**Apply and extend previous understandings of multiplication and division to divide fractions by fractions.**								
8	6.NS.1	Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem. *For example, create a story context for (2/3) ÷ (3/4) and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that (2/3) ÷ (3/4) = 8/9 because 3/4 of 8/9 is 2/3. (In general, (a/b) ÷ (c/d) = ad/bc.) How much chocolate will each person get if 3 people share 1/2 lb of chocolate equally? How many 3/4-cup servings are in 2/3 of a cup of yogurt? How wide is a rectangular strip of land with length 3/4 mi and area 1/2 square mi?*							
Cluster:	**Compute fluently with multi-digit numbers and find common factors and multiples.**								
9	6.NS.2	Fluently divide multi-digit numbers using the standard algorithm.							
10	6.NS.3	Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.							
11	6.NS.4	Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1–100 with a common factor as a multiple of a sum of two whole numbers with no common factor. *For example, express 36 + 8 as 4 (9 + 2).*							
Cluster:	**Apply and extend previous understandings of numbers to the system of rational numbers.**								
12	6.NS.5	Understand that positive and negative numbers are used together to describe quantities having opposite directions or values (e.g., temperature above/below zero, elevation above/below sea level, credits/debits, positive/negative electric charge); use positive and negative numbers to represent quantities in real-world contexts, explaining the meaning of 0 in each situation.							
13	6.NS.6	Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates.							
14	6.NS.6.a	Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line; recognize that the opposite of the opposite of a number is the number itself, e.g., −(−3) = 3, and that 0 is its own opposite.							
15	6.NS.6.b	Understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes.							
16	6.NS.6.c	Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.							
17	6.NS.7	Understand ordering and absolute value of rational numbers.							
18	6.NS.7.a	Interpret statements of inequality as statements about the relative position of two numbers on a number line diagram. *For example, interpret −3 > −7 as a statement that −3 is located to the right of −7 on a number line oriented from left to right.*							
19	6.NS.7.b	Write, interpret, and explain statements of order for rational numbers in real-world contexts. *For example, write −3 °C > −7 °C to express the fact that −3 °C is warmer than −7 °C.*							
20	6.NS.7.c	Understand the absolute value of a rational number as its distance from 0 on the number line; interpret absolute value as magnitude for a positive or negative quantity in a real-world situation. *For example, for an account balance of −30 dollars, write |−30| = 30 to describe the size of the debt in dollars.*							
21	6.NS.7.d	Distinguish comparisons of absolute value from statements about order. *For example, recognize that an account balance less than -30 dollars represents a debt greater than 30 dollars.*							

#	Standard	Description						
22	6.NS.8	Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.						
DOMAIN: 6.EE - Expressions and Equations								
Cluster: Apply and extend previous understandings of arithmetic to algebraic expressions.								
23	6.EE.1	Write and evaluate numerical expressions involving whole-number exponents.						
24	6.EE.2	Write, read, and evaluate expressions in which letters stand for numbers.						
25	6.EE.2.a	Write expressions that record operations with numbers and with letters standing for numbers. *For example, express the calculation "Subtract y from 5" as 5 − y.*						
26	6.EE.2.b	Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient); view one or more parts of an expression as a single entity. *For example, describe the expression 2 (8 + 7) as a product of two factors; view (8 + 7) as both a single entity and a sum of two terms.*						
27	6.EE.2.c	Evaluate expressions at specific values of their variables. Include expressions that arise from formulas used in real-world problems. Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). *For example, use the formulas V = s³ and A = 6 s² to find the volume and surface area of a cube with sides of length s = 1/2.*						
28	6.EE.3	Apply the properties of operations to generate equivalent expressions. *For example, apply the distributive property to the expression 3 (2 + x) to produce the equivalent expression 6 + 3x; apply the distributive property to the expression 24x + 18y to produce the equivalent expression 6 (4x + 3y); apply properties of operations to y + y + y to produce the equivalent expression 3y.*						
29	6.EE.4	Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them). *For example, the expressions y + y + y and 3y are equivalent because they name the same number regardless of which number y stands for.*						
Cluster: Reason about and solve one-variable equations and inequalities.								
30	6.EE.5	Understand solving an equation or inequality as a process of answering a question: Which values from a specified set, if any, make the equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.						
31	6.EE.6	Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.						
32	6.EE.7	Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p, q and x are all nonnegative rational numbers.						
33	6.EE.8	Write an inequality of the form $x > c$ or $x < c$ to represent a constraint or condition in a real-world or mathematical problem. Recognize that inequalities of the form $x > c$ or $x < c$ have infinitely many solutions; represent solutions of such inequalities on number line diagrams.						
Cluster: Represent and analyze quantitative relationships between dependent and independent variables.								
34	6.EE.9	Use variables to represent two quantities in a real-world problem that change in relationship to one another; write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation. *For example, in a problem involving motion at constant speed, list and graph ordered pairs of distances and times, and write the equation d = 65t to represent the relationship between distance and time.*						
DOMAIN: 6.G - Geometry								
Cluster: Solve real-world and mathematical problems involving area, surface area, and volume.								
35	6.G.1	Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems.						
36	6.G.2	Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths, and show that the volume is the same as would be found by multiplying the edge lengths of the prism. Apply the formulas $V = l\,w\,h$ and $V = b\,h$ to find volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.						
37	6.G.3	Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems.						
38	6.G.4	Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems.						
DOMAIN: 6.SP - Statistics and Probability								
Cluster: Develop understanding of statistical variability.								
39	6.SP.1	Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. *For example, "How old am I?" is not a statistical question, but "How old are the students in my school?" is a statistical question because one anticipates variability in students' ages.*						
40	6.SP.2	Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape.						
41	6.SP.3	Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number.						
Cluster: Summarize and describe distributions.								
42	6.SP.4	Display numerical data in plots on a number line, including dot plots, histograms, and box plots.						
43	6.SP.5	Summarize numerical data sets in relation to their context, such as by:						

44	6.SP.5.a	Reporting the number of observations.					
45	6.SP.5.b	Describing the nature of the attribute under investigation, including how it was measured and its units of measurement.					
46	6.SP.5.c	Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered.					
47	6.SP.5.d	Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered.					

Section 2: Math Content Review

PUBLISHERS/PROVIDERS:

- The Math Content Review tab will be completed solely by the reviewers. They will score each criterion and provide evidence for their score from the material based on their overall review of the material. You will not provide any citations for this tab.
- The material will be scored for alignment with each criterion as "Meets expectations", "Partially meets expectations", or "Does not meet expectations".

Criteria #	Grades K-12 Math Content Criteria	Score	Required: Reviewer's Evidence from Material *Include where you found the evidence in the material and what evidence you found that supports your score.*	Comments, citations, notes
FOCUS AREA 1: RIGOR AND MATHEMATICAL PRACTICES Materials support student mastery through a grade-appropriate balance of rigor: conceptual understanding, procedural fluency, and application. Materials meaningfully connect the Content Standards (CCSS) with the Standards for Mathematical Practice (SMPs).				
1	*Conceptual Understanding:* Materials support the intentional development of students' conceptual understanding of key mathematical concepts.			
2	*Procedural Skill and Fluency:* Materials support intentional opportunities for students to develop procedural skills and fluencies in alignment with what is called for in the grade-level standards.			
3	*Application:* Materials support students' ability to leverage mathematical skills, concepts, representations, and strategies across a range of contexts, (including applying learning to real-world situations and new contexts).			
4	*Balance of Rigor:* *With equitable intensity* The three aspects of rigor are not always treated together and are not always treated separately. The three aspects are balanced with respect to the standards being addressed in each grade level.			
5	*SMPs 1 and 6* Materials support the intentional development of making sense of problems and attending to precision as required by the mathematical practice standards 1 and 6.			
6	*SMPs 2 and 3* Materials support the intentional development of reasoning abstractly and quantitatively, along with developing viable arguments and critiquing the reasoning of others, in connection to the content standards, as required by the practice standards 2 and 3.			
7	*SMPs 4 and 5* Materials support the intentional development of modeling and using tools, in connection to the content standards, as required by the mathematical practice standards 4 and 5.			
8	*SMPs 7 and 8* Materials support the intentional development of seeing structure and generalizing, in connection to the content standards, as required by the mathematical practice standards 7 and 8.			

Criteria #	Grades K-12 Math Content Criteria	Score	Evidence	Comments, citations, notes
FOCUS AREA 2: STUDENT CENTERED INSTRUCTION Materials contain embedded resources (routines, strategies, and pedagogical suggestions) to support all students in developing a positive mathematical identity, cultivating self-efficacy, and seeing themselves as a contributor to the math community.				
9	Materials provide students with opportunities to develop self-efficacy and a positive mathematical identity through opportunities to engage in grade-level tasks using various sharing strategies and approaches.			
10	Materials provide opportunities for students to see themselves as contributors to the math community.			

	FOCUS AREA 3: INSTRUCTIONAL SUPPORTS FOR ALL STAKEHOLDERS Materials provide guidance and resources to support educators in internalizing the mathematical content and providing responsive and differentiated instruction to all students. Materials contain helpful resources to support implementation and instruction (e.g. materials for leaders, teachers, students, families/ caregivers, etc).			
11	Teacher materials contain full, adult-level explanations and examples of the mathematics concepts within lessons so teachers can improve their own knowledge of the subject. Materials are in print or clearly distinguished/accessible as a teacher's edition in digital materials.			
12	The materials provide guidance for unit/lesson preparation to support use of the materials as intended and to further develop the teachers' own understanding of the mathematical approach.			
13	Teacher materials provide insight into students' ways of thinking with respect to important mathematical concepts, especially anticipating a variety of student responses.			
14	Materials contain strategies for informing parents or caregivers about the mathematics program and suggestions for how they can help support student progress and achievement.			

Section 2: All Content Review

Criteria #	All Content Criteria Review	Score	**Required:** Reviewer's Evidence from Material *Include where you found the evidence in the material and what evidence you found that supports your score.*	Comments, citations, notes
FOCUS AREA 1: COHERENCE **Instructional materials are coherent and consistent with the New Mexico Content Standards** **that all students should study in order to be college- and career-ready.**				
1	Instructional materials address the full content contained in the standards for all students by grade level.			
2	Instructional materials support students to show mastery of each standard.			
3	Instructional materials require students to engage at a level of maturity appropriate to the grade level under review.			
4	Instructional materials are coherent, making meaningful connections for students by linking the standards within a lesson and unit.			
FOCUS AREA 2: WELL-DESIGNED LESSONS **Instructional materials take into account effective lesson structure and pacing.**				
5	The Teacher Edition presents learning progressions to provide an overview of the scope and sequence of skills and concepts. The design of the assignments shows a purposeful sequencing of teaching and learning expectations.			
6	Within each lesson of the instructional materials, there are clear, measurable, standards-aligned content objectives.			
7	Within each lesson of the instructional materials, there are clear, measurable language objectives tied directly to the content objectives.			
8	Instructional materials provide focused resources to support students' acquisition of both general academic vocabulary and content-specific vocabulary.			
9	The visual design of the instructional materials (whether in print or digital) maintains a consistent layout that supports student engagement with the subject.			
10	Instructional materials incorporate features that aid students and teachers in making meaning of the text.			
11	Instructional materials provide students with ongoing review and practice for the purpose of retaining previously acquired knowledge.			
FOCUS AREA 3: RESOURCES FOR PLANNING **Instructional materials provide teacher resources to support planning, learning,** **and understanding of the New Mexico Content Standards.**				
12	Instructional materials provide a list of lessons in the Teacher Edition (in print or clearly distinguished/ accessible as a teacher's edition in digital materials), cross-referencing the standards addressed and providing an estimated instructional time for each lesson, chapter, and unit.			
13	Instructional materials support teachers with instructional strategies to help guide students' academic development.			
14	Instructional materials include a teacher edition/ teacher-facing material with useful annotations and suggestions on how to present the content in the student edition/student-facing material and in the supporting material.			

15	Instructional materials integrate opportunities for digital learning, including interactive digital components.		

FOCUS AREA 4: ASSESSMENT
Instructional materials offer teachers a variety of assessment resources and tools
to collect ongoing data about student progress related to the standards.

16	Instructional materials provide a variety of assessments that measure student progress in all strands of the standards for the content under review. *(Adopted New Mexico Content Standards for 2024: NM STEM Ready Science Standards)*		
17	Instructional materials provide multiple formative and summative assessments, clearly defining which standards are being assessed through content and language objectives.		
18	Instructional materials provide scoring guides for assessments that are aligned with the standards they address, and that offer teachers guidance in interpreting student performance and suggestions for further instruction, differentiation, and/or acceleration.		
19	Instructional materials provide appropriate assessment alternatives for English Learners, Culturally and Linguistically Diverse students, advanced students, and special needs students.		
20	Instructional materials include opportunities to assess student understanding and knowledge of the standards using technology.		

FOCUS AREA 5: EXTENSIVE SUPPORT
Instructional materials give all students extensive opportunities and support to explore key concepts.

21	Instructional materials can be customized or adapted to meet the needs of different student populations.		
22	Instructional materials provide differentiated strategies and/or activities to meet the needs of students working below proficiency and those of advanced learners.		
23	Instructional materials provide appropriate linguistic support for English Learners and Culturally and Linguistically Diverse students, and accommodations and modifications for other special populations that will support their regular and active participation in learning content.		
24	Instructional materials provide strategies and resources for teachers to inform and engage parents, family members, and caregivers of all learners about the program and provide suggestions for how they can help support student progress and achievement.		
25	Instructional materials include opportunities for all students that encourage and support critical and creative thinking, inquiry, and complex problem-solving skills.		

FOCUS AREA 6: CULTURAL AND LINGUISTIC PERSPECTIVES
Instructional materials represent a variety of cultural and linguistic perspectives.

26	Instructional materials inform culturally and linguistically responsive pedagogy by affirming students' backgrounds in the materials themselves and in the student discussions.		
27	Instructional materials provide a collection of images, stories, and information, representing a broad range of demographic groups, and do not make generalizations or reinforce stereotypes.		
28	Instructional materials provide context, illustrations, and activities for students to make interdisciplinary connections and/or connections to real-life experiences and diverse cultural and linguistic backgrounds.		

FOCUS AREA 7: INCLUSION OF CULTURALLY AND LINGUISTICALLY RESPONSIVE LENS
Instructional materials highlight diversity in culture and language through multiple perspectives.

29	Instructional materials include tools and resources to relate the content area appropriately to diversity in culture and language.			
30	Instructional materials include tools and resources that demonstrate multiple perspectives in a specific concept.			
31	Instructional materials engage students in critical reflection about their own lives and societies, including cultures past and present in New Mexico.			
32	Instructional materials address multiple ethnic descriptions, interpretations, or perspectives of events and experiences.			

Standards for Mathematical Practice
1	Make sense of problems and persevere in solving them.
2	Reason abstractly and quantitatively.
3	Construct viable arguments and critique the reasoning of others.
4	Model with mathematics.
5	Use appropriate tools strategically.
6	Attend to precision.
7	Look for and make use of structure.
8	Look for and express regularity in repeated reasoning.