

Program Title: *MathLinks: Grade 7*

Components:

- TE-UPI (Teacher Edition: Part 1 - Unit Program Information) [10 units – first part of TE]
- TE-AK (Teacher Edition: Part 2 - Enhanced Answer Key) [10 units – second part of TE]
- SP (Student Packets) [10 units]
- PI (Program Information)
- Portal (Online Portal Resources)

This document can be found online at:

## **2025 California Common Core State Standards: Mathematics Adoption<sup>1</sup>**

### **Standards Map Template**

### **Grade Seven**

#### **Organization Around Major Conceptual Ideas**

Evaluation criterion statement 1.2 requires that programs be consistent with the content of the 2023 *Mathematics Framework for California Public Schools, Kindergarten Through Grade Twelve (Mathematics Framework)*. In order to be considered suitable for adoption by the State Board of Education, a publisher's or developer's program must present content organized around major conceptual ideas, as demonstrated in chapters 6, 7, and 8, and as described in the Publishers and Content Developers Guide to the Mathematics Framework, found in chapter 13 of the *Mathematics Framework*.

1. Publishers/developers should use the first column of this table to list the major conceptual ideas used to organize the instructional program.
2. In the second column, publishers/developers should show how these relate to the Framework's Big Ideas.
3. In the third column, publishers/developers should show the organization of the program by showing how the content standards are mapped to each of the major conceptual ideas or Big Ideas used by the program.

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<sup>1</sup> The California Common Core State Standards: Mathematics were adopted by the State Board of Education on August 2, 2010, (and modified pursuant to Senate Bill 1200 on January 16, 2013). This standards map is organized by Big Idea and Content Connections in alignment with the *Mathematics Framework for California Public Schools: Kindergarten Through Grade Twelve*, approved by the State Board of Education on July 12, 2023.

Major conceptual ideas in the program	How do the program's major conceptual ideas map to the framework's Big Ideas?	How are standards covered under the major conceptual ideas?	Met Yes	Met No	
Apply proportional reasoning to ratios, rates, percent and scale. (7.RP.A)	<ul style="list-style-type: none"> <li>Graphing relationships</li> <li>Populations and samples</li> <li>Probability models</li> <li>Proportional relationships</li> <li>Scale drawings</li> <li>Unit rates in the world</li> </ul>	The Standards for each lesson are listed in the gray box at the beginning of each lesson in the <b>Teacher's Edition (TE-AK)</b> and <b>Student Packet (SP)</b> .			
Operate with rational numbers. (7.NS.A)  (Note: CMF Big Ideas that involve operation with rational numbers in <i>MathLinks</i> are listed here.)	<ul style="list-style-type: none"> <li>2-D and 3-D connections</li> <li>Angle relationships</li> <li>Populations and samples</li> <li>Probability models</li> <li>Proportional relationships</li> <li>Unit rates in the world</li> <li>Scale drawings</li> <li>Shapes in the world</li> </ul>	See "Unit Overviews (pgs 2-3) in <b>Program Information (PI)</b> for the relationship between <i>MathLink's</i> Big Ideas, Content Standards, and Units of Study.			
Use algebra as a problem-solving tool. (7.EE.AB)  (Note: CMF Big Ideas that use algebra as a problem solving tool in <i>MathLinks</i> are listed here.)	<ul style="list-style-type: none"> <li>Angle relationships</li> <li>Graphing relationships</li> <li>Populations and samples</li> <li>Probability models</li> <li>Proportional relationships</li> <li>Scale drawings</li> <li>Shapes in the world</li> <li>Unit rates in the world</li> </ul>	See "Big Ideas and Connections" in Teaching Tips of the <b>Teacher Edition (TE-UPI)</b> (there is one for each unit) for a graphic that provides a snapshot of the big ideas included in each unit and their connections to each other.			
Develop spatial reasoning in two- and three-dimensions. (7.G.A)	<ul style="list-style-type: none"> <li>2-D and 3-D connections</li> <li>Scale drawings</li> <li>Shapes in the world</li> </ul>	See "Reflection" at the end of each Review section in the <b>Teacher Edition (TE-AK)</b> or <b>Student Packet (SP)</b> (there is one for each unit) for a student exercise that connects big ideas in the unit.			
Solve problems involving measurements of geometric figures. (7.G.B)	<ul style="list-style-type: none"> <li>Angle relationships</li> <li>Shapes in the world</li> </ul>				
Sample to understand populations with statistics. (7.SP.AB)	<ul style="list-style-type: none"> <li>Visualize populations</li> <li>Populations and samples</li> <li>Probability models</li> <li>Proportional relationships</li> </ul>				
Find the likelihood of events with probability. (7.SP.C)	<ul style="list-style-type: none"> <li>Probability models</li> <li>Proportional relationships</li> </ul>				

Publishers/developers should be aware of how major conceptual ideas develop from one grade to the next. For charts detailing the progression of the *Mathematics Framework*'s Big Ideas throughout the grade levels, see [chapter 6](#) (TK–grade 2 and grades 3–5) and [chapter 7](#) (grades 6–8).

State-adopted instructional materials help teachers to present and students to learn the content set forth in the *California Common Core State Standards for Mathematics with California Additions*, which include both the content standards and the standards for mathematical practice (SMPs). Publishers/developers should use the following tables to provide page number citations or other references that demonstrate alignment with the SMPs and content standards.

## Standards for Mathematical Practice

**Codes:** TE-UPI Teacher Edition Unit Program Information  
TE-AK = Teacher's Edition Answer Key

Standard	Standard Language	Publisher/Developer Citations	Met Yes	Met No	Reviewer Notes
MP.1	Make sense of problems and persevere in solving them.	<ul style="list-style-type: none"> <li>Units 1-10 TE-UPI, page varies (Applying Standards for Mathematical Practice) [<i>SMP1</i>]</li> <li>Unit 2 TE-AK pgs 1 + 11(Opening Problem: Using Coupons + Using Coupons Revisited)</li> <li>Unit 6 TE-AK pgs 1 + 1ab + 10 (Opening Problem: Crossing the Lake + Lesson Notes + Crossing the Lake Revisited)</li> <li>Unit 9 TE- AK pgs1 + 1a + 13 #7 (Opening Problem Felix the Sheep + Lesson Notes + Practice 4: Extend Your Thinking)</li> <li>Unit 10 TE- AK pgs 14 + 14ab (Estimating Fish Populations + Lesson Notes)</li> </ul>			

Standard	Standard Language	Publisher/Developer Citations	Met Yes	Met No	Reviewer Notes
MP.2	Reason abstractly and quantitatively.	<ul style="list-style-type: none"> <li>• Units 1-10 TE-UPI, page varies (Applying Standards for Mathematical Practice) [<i>SMP2</i>]</li> <li>• Unit 3 TE-AK pgs 15 + 15ab (Double Number Lines and Equations + Lesson Notes) [<i>If-Then-Generalize</i>]</li> <li>• Unit 8 TE-AK pg 6 (Using Algebra to Find Angle Measures)</li> <li>• Unit 9 TE-AK pgs 10 + 10a (An Area Investigation + Lesson Notes)</li> </ul>			
MP.3	Construct viable arguments and critique the reasoning of others.	<ul style="list-style-type: none"> <li>• Units 1-10 TE-UPI, page varies (Applying Standards for Mathematical Practice) [<i>SMP3</i>]</li> <li>• Units 1-10 TE-AK, pages vary (Slide Decks varies) [<i>Students from “the MathLinks class” make conjectures to critique and discuss</i>]</li> <li>• Unit 1 TE-AK pg 16 #6 (Race to the Top Revisited)</li> <li>• Unit 2 TE-AK pg 9 #4c (Practice 4)</li> <li>• Unit 5 TE-AK pg 20 + 20ab (The Order of Operations Conventions) [<i>slides 1, 2, 3</i>]</li> </ul>			

Standard	Standard Language	Publisher/Developer Citations	Met Yes	Met No	Reviewer Notes
MP.4	Model with mathematics.	<ul style="list-style-type: none"> <li>Units 1-10 TE-UPI, page varies (Applying Standards for Mathematical Practice) [<i>SMP4</i>]</li> <li>Unit 4 TE-AK pg 14 (Zero-Sum Game)</li> <li>Unit 6 TE-AK pgs 3-4 + 4ab (How Many on the Border? + Lesson Notes)</li> <li>Unit 9 TE-AK pg 21 #5 (Practice 6)</li> </ul>			
MP.5	Use appropriate tools strategically.	<ul style="list-style-type: none"> <li>Units 1-10 TE-UPI, page varies (Teaching Tips: Applying Standards for Mathematical Practice) [<i>SMP5</i>]</li> <li>Unit 2 TE-AK pg 1 (Using Coupons) [<i>to use or not to use calculators</i>]</li> <li>Unit 2 TE-AK pg 5 (Estimating Percent Increases and Decreases) [<i>appropriate use of calculators</i>]</li> <li>Unit 2 TE-AK pg 7 + 7a (Sales and Sales Tax + Lesson Notes)</li> <li>Unit 6 TE-AK pg 21 (Practice 9)</li> <li>Unit 10 TE-UPI pg vii (Applying Standards for Mathematical Practice) [<i>SMP5</i>]</li> </ul>			
MP.6	Attend to precision.	<ul style="list-style-type: none"> <li>Units 1-10 TE-UPI, page varies (Applying Standards for Mathematical Practice) [<i>SMP6</i>]</li> <li>Unit 5 TE-AK pgs 0, 9 #4, 27, 31 (My Word Bank, Practice 3, Vocabulary Review, Student Resources)</li> <li>Unit 8 TE-AK pgs 1 + 1a (Tear It Up + Lesson Notes)</li> <li>Unit 8 TE-AK pg 2 #9 (Getting Started)</li> <li>Unit 9 TE-AK pg 6 (A Closer Look at Approximate Values for Pi)</li> </ul>			

Standard	Standard Language	Publisher/Developer Citations	Met Yes	Met No	Reviewer Notes
MP.7	Look for and make use of structure.	<p><b>In all units</b></p> <ul style="list-style-type: none"> <li>• Units 1-10 TE-UPI, page varies (Applying Standards for Mathematical Practice) [<i>SMP7</i>]</li> <li>• Unit 4 TE-AK pgs 5 + 5a (Adding Integers with Counters + Lesson Notes)</li> <li>• Unit 5 TE-AK pg 6 (Relating Multiplication and Division)</li> <li>• Unit 6 TE-AK pgs 3-4 + 4abc (How Many on the Border? + Lesson Notes)</li> <li>• Unit 9 TE-AK pg 19 + 19ab (Volume and Surface Area + Lesson Notes)</li> </ul>			
MP.8	Look for and express regularity in repeated reasoning.	<ul style="list-style-type: none"> <li>• Units 1-10 TE-UPI, page varies (Applying Standards for Mathematical Practice) [<i>SMP8</i>]</li> <li>• Unit 1 TE-AK pg 10 + 10abc (Investigating One-Third + Lesson Notes)</li> <li>• Unit 6 TE-AK pgs 3-4 + 4abc (How Many on the Border? + Lesson Notes)</li> <li>• Unit 7 pg 10 + 10ab (Solving Equations with Balance + Lesson Notes)</li> </ul>			

## Grade-level Content Standards

### Domain: Ratios and Proportional Relationships

**Cluster: Analyze proportional relationships and use them to solve real-world and mathematical problems.**

How does the program address this aspect of the domain?

Standard	Standard Language	Publisher/Developer Citations	Met Yes	Met No	Reviewer Notes
7.RP.1	Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units.	<p>Included in 3.1, 3.2, 3.3</p> <ul style="list-style-type: none"> <li>• Unit 3 TE-AK pg 11 #7 + 11ab (Cap'n Sherman's Shrimp Shop + Lesson Notes)</li> <li>• Unit 3 TE-AK pg 18 (Yazzie's Cornbread)</li> <li>• Unit 3 TE-AK pg 21 (Practice 8: Extend Your Thinking)</li> </ul>			
7.RP.2a	Recognize and represent proportional relationships between quantities. Decide whether two quantities are in a proportional relationship.	<p>Included in 3.1, 3.2, 6.1, 6.2, 7.2, 9.1, 9.2, 9.3</p> <ul style="list-style-type: none"> <li>• Unit 3 TE-AK pgs 3-4 + 4ab (Proportional Relationships + Lesson Notes)</li> <li>• Unit 3 TE-AK pg 13 #9 (Practice 3)</li> <li>• Unit 9 TE-AK pg 11 #7 (Area Representations)</li> </ul>			
7.RP.2b	Recognize and represent proportional relationships between quantities. Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.	<p>Included in 3.1, 3.2, 3.3</p> <ul style="list-style-type: none"> <li>• Unit 3 TE-AK pgs 3-4 + 4ab (Proportional Relationships + Lesson Notes)</li> <li>• Unit 3 TE-AK pg 11 #10 + 11b (Cap'n Sherman's Shrimp Shop + Lesson Notes)</li> <li>• Unit 9 TE-AK pg 8 #5-9 (Circumference Representations)</li> </ul>			

Standard	Standard Language	Publisher/Developer Citations	Met Yes	Met No	Reviewer Notes
7.RP.2c	Recognize and represent proportional relationships between quantities. Represent proportional relationships by equations.	<p>Included in 2.2, 3.2, 3.3, 7.1, 9.1</p> <ul style="list-style-type: none"> <li>Unit 3 TE-AK pg 11 #8 + 11b (Cap'n Sherman's Shrimp Shop + Lesson Notes)</li> <li>Unit 3 TE-AK pg 17 (Practice 5)</li> <li>Unit 9 TE-AK pg 8 #7, 9c (Circumference Representations)</li> </ul>			
7.RP.2d	Recognize and represent proportional relationships between quantities. Explain what a point $(x, y)$ on the graph of a proportional relationship means in terms of the situation, with special attention to the points $(0, 0)$ and $(1, r)$ where $r$ is the unit rate.	<p>Included in 3.2, 9.1</p> <ul style="list-style-type: none"> <li>Unit 3 TE-AK pg 11 #5-9 + 11ab (Cap'n Sherman's Shrimp Shop + Lesson Notes)</li> <li>Unit 3 TE-AK pg 12 #2 (Practice 3)</li> <li>Unit 9 TE-AK pg 8 #4-6 (Circumference Representations)</li> </ul>			
7.RP.3	Use proportional relationships to solve multistep ratio and percent problems.	<p>Included in 2.1, 2.2, 2.3, 6.4, 9.2, 10.2, 10.3</p> <ul style="list-style-type: none"> <li>Unit 2 TE-AK pg 10 (Buying a Skateboard)</li> <li>Unit 2 TE-AK pg 17 (Practice 7)</li> <li>Unit 3 TE-AK pg 20 (Practice 7: Extend Your Thinking)</li> <li>Unit 10 TE-AK pg 10 #18 (Math Score Samples)</li> </ul>			



## Domain: The Number System

**Cluster: Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.**

How does the program address this aspect of the domain?

Standard	Standard Language	Publisher/Developer Citations	Met Yes	Met No	Reviewer Notes
7.NS.1a	Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. Describe situations in which opposite quantities combine to make 0.	Included in 4.1, 4.2, 4.3  • Unit 4 TE-AK pg 3 + 3ab (A Counter Model + Lesson Notes) [ <i>opposites</i> ]  • Unit 4 TE-AK pg 7 / 23-26. Practice 2 [ <i>opposites</i> ]  • Unit 4 TE-AK pg 16 + 16a (Number Line Addition + Lesson Notes) [ <i>number line</i> ]  • Unit 4 TE-AK pg 18 + 18ab (Number Line Subtraction + Lesson Notes) [ <i>number line</i> ]			

Standard	Standard Language	Publisher/Developer Citations	Met Yes	Met No	Reviewer Notes
7.NS.1b	<p>Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. Understand <math>p + q</math> as the number located a distance <math> q </math> from <math>p</math>, in the positive or negative direction depending on whether <math>q</math> is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts.</p>	<p>Included in 4.1, 4.2, 4.3</p> <ul style="list-style-type: none"> <li>Unit 4 TE-AK pg 3 #3, 6, 7 + 3ab (A Counter Model + Lesson Notes) [<i>additive inverse</i>]</li> <li>Unit 4 TE-AK pg 8 #4 (Practice 3) [<i>real-world</i>]</li> <li>Unit 4 TE-AK pg 16 +16a (Number Line Addition + Lesson Notes) [<i>distance</i>]</li> <li>Unit 4 TE-AK pg 23 #1 (Practice 9: Extend Your Thinking) [<i>real-world</i>]</li> </ul>			
7.NS.1c	<p>Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. Understand subtraction of rational numbers as adding the additive inverse, <math>p - q = p + (-q)</math>. Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.</p>	<p>Included in 4.2, 4.3</p> <ul style="list-style-type: none"> <li>Unit 4 TE-AK pg 12 #1-8 (The Subtraction Rule) [<i>additive inverse</i>]</li> <li>Unit 4 TE-AK pg 22 #1-11 (Exploring Difference and Distance on the Number Line) [<i>distance</i>][<i>real-world</i>]</li> <li>Unit 4 TE-AK pg 24 #1-9 (Comparing Addition and Subtraction) [<i>additive inverse</i>]</li> </ul>			

Standard	Standard Language	Publisher/Developer Citations	Met Yes	Met No	Reviewer Notes
7.NS.1d	Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram. Apply properties of operations as strategies to add and subtract rational numbers.	<p>Included in 4.2, 4.3, 5.1, 5.3</p> <ul style="list-style-type: none"> <li>• Unit 4 TE-AK pg 13 (Practice 4)</li> <li>• Unit 4 TE-AK pg 20 (Practice 7)</li> <li>• Unit 4 TE-AK pg 21 (Practice 8 )</li> <li>• Unit 4 TE-AK pg 23 #2-9 (Practice 9)</li> </ul>			
7.NS.2a	Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as $(-1)(-1) = 1$ and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts.	<p>Included in 5.1, 5.2, 5.3</p> <ul style="list-style-type: none"> <li>• Unit 5 TE-UPI pg iv (Math Background: Why Does <math>(-1)(-1) = 1</math>?) [<i>mult concept</i>]</li> <li>• Unit 5 TE-AK pg 1 #1-5 (More of Mr. Mortimer's Magic) [<i>real-world</i>]</li> <li>• Unit 5 TE-AK pg 3 #1-7 + 3a (Multiplying Integers with Counters 1 + Lesson Notes) [<i>mult concept</i>]</li> <li>• Unit 5 TE-AK pg 8 #3,4 (Practice 3) [<i>real-world</i>]</li> <li>• Unit 5 TE-AK pg 10 + 10ab (Number Line Multiplication + Lesson Notes) [<i>mult concept</i>]</li> <li>• Unit 5 TE-AK pg 22 (Practice 8) [<i>real-world</i>]</li> <li>• Unit 5 TE-AK pg 23 #1-4 (Practice 9: Extend Your Thinking) [<i>mult concept</i>]</li> </ul>			

Standard	Standard Language	Publisher/Developer Citations	Met Yes	Met No	Reviewer Notes
	<p>Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. Understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers (with non-zero divisor) is a rational number. If <math>p</math> and <math>q</math> are integers, then <math>-(p/q) = (-p)/q = p/(-q)</math>. Interpret quotients of rational numbers by describing real world contexts.</p>	<p>Included in 5.1, 5.2, 5.3</p> <ul style="list-style-type: none"> <li>Unit 5 TE-UPI pg v (Math Background: Why is Division by Zero Undefined?) [<i>div concept</i>]</li> <li>Unit 5 TE-AK pg 6 #1-6 (Relating Multiplication and Division) [<i>div concept</i>]</li> <li>Unit 5 TE-AK pg 8 #1, 2 (Practice 3) [<i>real-world</i>]</li> <li>Unit 5 TE-AK pg 14 (Determining the Sign of a Quotient) [<i>div concept</i>]</li> <li>Unit 5 TE-AK pg 15 (Writing Rational Numbers in Different Forms) [<i>div concept</i>]</li> <li>Unit 5 TE-AK pg 16 (Exploring Division Involving Zero) [<i>div concept</i>]</li> <li>Unit 5 TE-AK pg 22 #1-4 (Practice 8) [<i>real-world</i>]</li> <li>Unit 5 TE-AK pg 23 #5-8 (Practice 9) [<i>div concept</i>]</li> </ul>			

Standard	Standard Language	Publisher/Developer Citations	Met Yes	Met No	Reviewer Notes
7.NS.2c	Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. Apply properties of operations as strategies to multiply and divide rational numbers.	<p>Included in 5.1, 5.2, 5.3</p> <ul style="list-style-type: none"> <li>• Unit 5 TE-AK pg 12 (Practice 5)</li> <li>• Unit 5 TE-AK pg 23 #1-4 (Practice 9)</li> <li>• Unit 5 TE-AK pg 25 (Poster Problems)</li> <li>• Unit 5 TE-AK pg 26 (Order of Operations Pair Share)</li> </ul>			
7.NS.2d	Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. Convert a rational number to a decimal using long division; know that the decimal form of a rational number terminates in 0s or eventually repeats.	<p>Included in 1.2, 1.3</p> <ul style="list-style-type: none"> <li>• Unit 1 TE-AK pg 10 + 10abc (Investigating One-Third + Lesson Notes)</li> <li>• Unit 1 TE-AK pg 17 (Getting Started)</li> <li>• Unit 1 TE-AK pg 18-19 (The Terminator)</li> <li>• Unit 5 TE-AK pg 28 #2 (Spiral Review) [recurring feature]</li> </ul>			

Standard	Standard Language	Publisher/Developer Citations	Met Yes	Met No	Reviewer Notes
7.NS.3	Solve real-world and mathematical problems involving the four operations with rational numbers. <sup>2</sup>	<p>Included in 2.1-2.3, 3.1-3.3, 5.1-5.3, 6.4, 7.1-7.4, 9.1-9.3</p> <ul style="list-style-type: none"> <li>Unit 2 TE-AK pg 9 (Practice 4)</li> <li>Unit 3 TE-AK pg 18 (Yazzie's Cornbread Recipe)</li> <li>Unit 5 TE-AK pg 8 (Practice 3)</li> <li>Unit 5 TE-AK pg 22 (Practice 8)</li> <li>Unit 7 TE-AK pg 24 (Practice 8)</li> <li>Unit 8 TE-AK pgs 23-25 (Spiral Review)</li> <li>Unit 9 TE-AK pg 14 (Penny Drop Probabilities)</li> </ul>			

<sup>2</sup> Computations with rational numbers extend the rules for manipulating fractions to complex fractions.  
Standards Map for *MathLinks*: Grade 7–2025 Mathematics Adoption

## Domain: Expressions and Equations

### Cluster: Use properties of operations to generate equivalent expressions.

How does the program address this aspect of the domain?

Standard	Standard Language	Publisher/Developer Citations	Met Yes	Met No	Reviewer Notes
7.EE.1	Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.	<p>Included in 6.1, 6.3, 6.4, 7.2, 7.3, 7.4</p> <ul style="list-style-type: none"> <li>Unit 6 TE-AK pg 4 #3abcde +4bc (How Many on the Border? + Lesson Notes)</li> <li>Unit 6 TE-AK pg 7 (Practice 3)</li> <li>Unit 6 TE-AK pg 24 (Rewriting Expressions with Fractions)</li> <li>Unit 7 TE-AK pg 12 + 12a (Solving Equations Algebraically + Lesson Notes)</li> <li>Unit 7 TE-AK pg 24 (Practice 8)</li> </ul>			
7.EE.2	Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related.	<p>Included in 2.1, 2.2, 6.1, 6.4</p> <ul style="list-style-type: none"> <li>Unit 2 TE-AK pg 7 + 7a (Sales and Sales Taxes + Lesson Notes)</li> <li>Unit 2 TE-AK pg 18 #2 (Practice 8)</li> <li>Unit 6 TE-AK pg 3-4 + 4abc (How Many on the Border + Slide Deck)</li> <li>Unit 6 TE-AK pg 6 (Practice 2)</li> </ul>			

**Cluster: Solve real-life and mathematical problems using numerical and algebraic expressions and equations.**

How does the program address this aspect of the domain?

Standard	Standard Language	Publisher/Developer Citations	Met Yes	Met No	Reviewer Notes
7.EE.3	Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies.	<p>Included in 2.1, 2.2, 2.3, 3.2, 3.3, 5.1, 5.3, 6.4, 9.2, 9.3</p> <ul style="list-style-type: none"> <li>Unit 2 TE-AK pg 8 #2 (Practice 3) [<i>calculate</i>]</li> <li>Unit 3 TE-AK pg 18 (Yazzie's Cornbread Recipe) [<i>real-life</i>]</li> <li>Unit 5 TE-AK pg 10 (Number Line Multiplication) [<i>calculate</i>]</li> <li>Unit 5 TE-AK pg 22 (Practice 8) [<i>real-life</i>]</li> <li>Unit 6 TE-AK pg 8 (Paintings on Wall) [<i>real-life</i>]</li> <li>Unit 7 TE-AK pg 14 #1-3 (Practice 5) [<i>calculate</i>]</li> <li>Unit 9, pg 14 (Penny Drop Probabilities) [<i>reasonable</i>]</li> <li>Unit 9 TE-AK pg 19 #1-5 (Volume and Surface Area) [<i>convert</i>]</li> </ul>			



Standard	Standard Language	Publisher/Developer Citations	Met Yes	Met No	Reviewer Notes
7.EE.4a	Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities. Solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$ , where $p$ , $q$ , and $r$ are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach.	<p>Included in 7.1, 7.2, 7.4, 8.1</p> <ul style="list-style-type: none"> <li>Unit 7 TE-AK pg 3 + 3a (The Cover Up Method + Lesson Notes) [<i>algebra vs arithmetic</i>]</li> <li>Unit 7 TE-AK pg 10 #2-5 + 10ab (Solving Equations with Balance + Lesson Notes) [<i>algebra vs arithmetic</i>]</li> <li>Unit 7 TE-AK pg 14 #4 (Practice 5) [<i>word problems</i>]</li> <li>Unit 7 pg 15 #8-10 (Ramon's Phones) [<i>word problems</i>]</li> <li>Unit 7 TE-AK pg 24 (Practice 8) [<i>fluency</i>]</li> <li>Unit 8 TE-AK pg 6 (Using Algebra to Find Angle Measures) [<i>word problems</i>]</li> <li>Unit 10 TE-AK Review, pg 21 #1 (Spiral Review) [<i>fluency</i>]</li> </ul>			

Standard	Standard Language	Publisher/Developer Citations	Met Yes	Met No	Reviewer Notes
7.EE.4b	Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities. Solve word problems leading to inequalities of the form $px + q > r$ or $px + q < r$ , where $p$ , $q$ , and $r$ are specific rational numbers. Graph the solution set of the inequality and interpret it in the context of the problem.	<p>Included in 7.3, 7.4</p> <ul style="list-style-type: none"> <li>Unit 7 TE-AK pg 26 (Practice 9)</li> <li>Unit 7 TE-AK pg 27 (Iesha's Summer)</li> </ul>			

## Domain: Geometry

**Cluster: Draw, construct, and describe geometrical figures and describe the relationships between them.**

How does the program address this aspect of the domain?.

Standard	Standard Language	Publisher/Developer Citations	Met Yes	Met No	Reviewer Notes
7.G.1	Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.	<p>Included in 2.3, 3.1, 8.2, 8.3</p> <ul style="list-style-type: none"> <li>Unit 2 TE-AK pg 21 (Practice 9)</li> <li>Unit 2 TE-AK pg 22 (Practice 10)</li> <li>Unit 2 TE-AK pg 26 (Practice 12)</li> </ul>			

Standard	Standard Language	Publisher/Developer Citations	Met Yes	Met No	Reviewer Notes
7.G.2	Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle.	<p>Included in 8.2</p> <ul style="list-style-type: none"> <li>Unit 8 TE-AK pg 10-11 (A Polygon Investigation)</li> <li>Unit 8 TE-AK pg 12-13 + 13ab (Protractor and Ruler Drawings)</li> <li>Unit 8 TE-AK pg 14 #5 (Practice 4)</li> </ul>			
7.G.3	Describe the two-dimensional figures that result from slicing three-dimensional figures, as in plane sections of right rectangular prisms and right rectangular pyramids.	<p>Included in 8.3</p> <ul style="list-style-type: none"> <li>Unit 8 TE-AK pg 17 +17a (Cross Sections 1: Prisms + Lesson Notes)</li> <li>Unit 8 TE-AK pg 18 +18a Cross Sections 2: Pyramids + Lesson Notes)</li> </ul>			

Cluster: Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.  
How does the program address this aspect of the domain?

Standard	Standard Language	Publisher/Developer Citations	Met Yes	Met No	Reviewer Notes
7.G.4	Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle.	<p>Included in 9.1, 9.2, 9.3</p> <ul style="list-style-type: none"> <li>Unit 9 TE-AK pg 7 #4-9 (Practice 2)</li> <li>Unit 9 TE-AK pg 10 + 10a (An Area Investigation + Lesson Notes)</li> <li>Unit 9 TE-AK pg 11 (Practice 3)</li> </ul>			

Standard	Standard Language	Publisher/Developer Citations	Met Yes	Met No	Reviewer Notes
7.G.5	Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure.	<p>Included in 8.1</p> <ul style="list-style-type: none"> <li>Unit 8 TE-AK pg 4 (Practice 1)</li> <li>Unit 8 TE-AK pg 6 #1-3 (Using Algebra to Find Angle Measures)</li> </ul>			
7.G.6	Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.	<p>Included in 9.3</p> <ul style="list-style-type: none"> <li>Unit 9 TE-AK pg 17 (Area of Composite Figures)</li> <li>Unit 9 TE-AK pg 20 + xvi (Match 'Em Up + Reproducible 9-2 Match 'Em Up Cards)</li> </ul>			

## Domain: Statistics and Probability

### Cluster: Use random sampling to draw inferences about a population.

How does the program address this aspect of the domain?

Standard	Standard Language	Publisher/Developer Citations	Met Yes	Met No	Reviewer Notes
7.SP.1	Understand that statistics can be used to gain information about a population by examining a sample of the population; generalizations about a population from a sample are valid only if the sample is representative of that population. Understand that random sampling tends to produce representative samples and support valid inferences.	<p>Included in 10.1, 10.2, 10.3</p> <ul style="list-style-type: none"> <li>Unit 10 TE-AK pg + 4ab (Populations and Sampling + Lesson Notes)</li> <li>Unit 10 TE-AK pg 5 + xiv (Sampling Sort + R10-1 Sampling Sort)</li> <li>Unit 10 TE-AK pg 6 (Practice 1)</li> </ul>			

Standard	Standard Language	Publisher/Developer Citations	Met Yes	Met No	Reviewer Notes
7.SP.2	Use data from a random sample to draw inferences about a population with an unknown characteristic of interest. Generate multiple samples (or simulated samples) of the same size to gauge the variation in estimates or predictions.	<p>Included in 10.2, 10.3</p> <ul style="list-style-type: none"> <li>• Unit 10 TE-AK pgs 9-10 #12, 19 (Math Score Samples)</li> <li>• Unit 10 TE-AK pg 14 + 14ab (Estimating Fish Populations + Lesson Notes)</li> <li>• Unit 10 TE-AK pg 15-16 (Practice 4: Fish Lengths)</li> </ul>			

**Cluster: Draw informal comparative inferences about two populations.**

How does the program address this aspect of the domain?

Standard	Standard Language	Publisher/Developer Citations	Met Yes	Met No	Reviewer Notes
7.SP.3	Informally assess the degree of visual overlap of two numerical data distributions with similar variabilities, measuring the difference between the centers by expressing it as a multiple of a measure of variability.	Included in 10.2 <ul style="list-style-type: none"><li>• Unit 10 TE-AK pg 11 (Practice 2)</li><li>• Unit 10 TE-AK pg 12 #4 (Practice 3)</li><li>• Unit 10 TE-AK pg 15-16 #9-11 (Practice 4: Fish Lengths)</li></ul>			
7.SP.4	Use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations.	Included in 10.2, 10.3 <ul style="list-style-type: none"><li>• Unit 10 TE-AK pg 12 (Practice 3)</li><li>• Unit 10 TE-AK pg 15-16 (Practice 4: Fish Lengths)</li></ul>			

**Cluster: Investigate chance processes and develop, use, and evaluate probability models.**

How does the program address this aspect of the domain?

Standard	Standard Language	Publisher/Developer Citations	Met Yes	Met No	Reviewer Notes
7.SP.5	Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around $\frac{1}{2}$ indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event.	Included in 1.1, 10.1 <ul style="list-style-type: none"><li>• Unit 1 TE-AK pg 3 (Will it Happen?)</li><li>• Unit 1 TE-AK pg 5 #1-7 (Practice 1)</li><li>• Unit 10 TE-AK pg 3 + 3ab (Revisiting Probability + Lesson Notes)</li></ul>			

Standard	Standard Language	Publisher/Developer Citations	Met Yes	Met No	Reviewer Notes
7.SP.6	Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the approximate relative frequency given the probability.	<p>Included in 1.1, 1.2, 1.3</p> <ul style="list-style-type: none"> <li>Unit 1 TE-AK pg 4 +4ab (A Coin Flip Experiment + Lesson Notes)</li> <li>Unit 1 TE-AK pg 6 +6a (A Spinner Experiment)</li> <li>Unit 1 TE-AK pg 7 #7-9 (Practice 2)</li> </ul>			
7.SP.7a	Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy. Develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events.	<p>Included in 1.1, 1.2, 1.3, 9.2, 10.1</p> <ul style="list-style-type: none"> <li>Unit 1 TE-AK pg 4 #6, 7, 9, 10 + 4ab (A Coin Flip Experiment + Lesson Notes)</li> <li>Unit 1 TE-AK pg 8 #1-10 (Practice 3)</li> </ul>			
7. SP.7b	Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy. Develop a probability model (which may not be uniform) by observing frequencies in data generated from a chance process.	<p>Included in 1.1, 1.2, 1.3, 4.2</p> <ul style="list-style-type: none"> <li>Unit 1 TE-AK pg 6 + 6a (Spinner Experiment + Lesson Notes)</li> <li>Unit 1 TE-AK pg 7 (Practice 2)</li> </ul>			

Standard	Standard Language	Publisher/Developer Citations	Met Yes	Met No	Reviewer Notes
7.SP.8a	Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation. Understand that, just as with simple events, the probability of a compound event is the fraction of outcomes in the sample space for which the compound event occurs.	Included in 1.2, 1.3, 4.2  <ul style="list-style-type: none"> <li>Unit 1 TE-AK pg 12-13, Flip and Roll / 1-9 + slide deck</li> <li>Unit 1 TE-AK pgs 15-16 #1-6 (Race to the Top Revisited)</li> </ul>			
7.SP.8b	Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation. Represent sample spaces for compound events using methods such as organized lists, tables and tree diagrams. For an event described in everyday language, identify the outcomes in the sample space which compose the event.	Included in 1.2, 1.3  <ul style="list-style-type: none"> <li>Unit 1 TE-AK pg 12-13 #1, 5-8 + 13ab (Flip and Roll + Lesson Notes)</li> <li>Unit 1 TE-AK pg 14 #1 (Practice 5)</li> <li>Unit 1 TE-AK pg 19 #1 (The Terminator: Theoretical Probability)</li> <li>Unit 1 TE-AK pg 20 + 20a + xv (Spinner Puzzles + Lesson Notes + R1-2 Spinner Clue Cards)</li> </ul>			
7.SP.8c	Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation. Design and use a simulation to generate frequencies for compound events.	Included in 1.3, 10.3  <ul style="list-style-type: none"> <li>Unit 1 TE-AK pg 22 (The Cereal Box Simulation)</li> <li>Unit 10 TE-AK pg 14-15 (Estimating Fish Populations)</li> </ul>			

**Appendix:** (Publisher/Developer, please enter any additional notes regarding the standards below.)