Ganado Unified School District

6th Grade Math and 6th Grade Honors Math

PACING Guide SY 2017-2018

Timeline & Resources	**AZ College and Career Readiness Standard**	**Essential Question (HESS Matrix)**	**Learning Goal**	**Vocabulary (Content/Academic)**
QUARTER ONE				
Q1				•
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	6.RP.A.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."*	Bloom: Application & Comprehension Hess: DOK Level 2 EQ: • What are ratios and rates and how are they used in solving problems? •	I will be able to: • understand the concept of a ratio • use ratio language to describe a ratio relationship between two quantities • ACTIVITIES: • Fruit Loops	• ratio • terms •
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	6.RP.A.2 Understand the concept of a unit rate a/b associated with a ratio $a:b$ with $b \neq 0$, 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*	Bloom: Application & Comprehension Hess: DOK Level 2 EQ: • What are ratios and rates and how are	I will be able to: • understand the concept of a unit rate a/b associated with a ratio $a:b$ with $b \neq 0$ • use rate language in the context of a ratio relationship •	• rate • unit rate •

Ganado Unified School District

6th Grade Math and 6th Grade Honors Math

PACING Guide SY 2017-2018

	hamburgers, which is a rate of $5 per hamburger." (Note: Expectations for unit rates in this grade are limited to non-complex fractions.)	they used in solving problems? • What procedures can be used to solve proportions? •	ACTIVITIES: •	
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	6.RP.A.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.	Bloom: Application Hess: DOK Level 2 & 3 EQ: • What are ratios and rates and how are they used in solving problems? • What procedures can be used to solve proportions? • What is the meaning of percent? • How can percent be estimated and found? •	I will be able to: • 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 • ACTIVITIES: •	• proportion • fraction • decimal • percent •

Ganado Unified School District

6th Grade Math and 6th Grade Honors Math

PACING Guide SY 2017-2018

• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	6.RP.A.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	Bloom: Application Hess: DOK Level 2 EQ: • What procedures can be used to solve proportions? •	I will be able to: • make tables of equivalent ratios relating quantities with whole-number measurements • find missing values in the tables • plot the pairs of values on the coordinate plane • use tables to compare ratios • ACTIVITIES: • Mathematical Tasks - Fuel Usage - Walking Around the School - Attributes of a Stink Bug - •	• •
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games	6.RP.A.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,*	Bloom: Application Hess: DOK Level 2 EQ:	I will be able to: • solve unit rate problems including those involving unit pricing and constant speed •	• rate • unit rate •

Ganado Unified School District

6th Grade Math and 6th Grade Honors Math

PACING Guide SY 2017-2018

•	*how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?*	• What are ratios and rates and how are they used in solving problems? • What procedures can be used to solve proportions?	ACTIVITIES: • Mathematical Tasks - Buying Soup - Mowing Lawns - •	
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	6.RP.A.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.	Bloom: Application Hess: DOK Level 2 EQ: • What is the meaning of percent? • How can percent be estimated and found? •	I will be able to: • 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 • ACTIVITIES: • Mathematical Tasks - Shirt Sale - Apple Farm - •	• percent • • •

Ganado Unified School District

6th Grade Math and 6th Grade Honors Math

PACING Guide SY 2017-2018

• ConnectED • enVision • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	6.RP.A.3 d. Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.	Bloom: Application Hess: DOK Level 2 EQ: • How can customary and Metric measurements be converted to other units? • How are customary and Metric units related? •	I will be able to: • use ratio reasoning to convert measurement units • manipulate units appropriately when multiplying or dividing quantities • transform units appropriately when multiplying or dividing quantities • ACTIVITIES: • King Henry KHDUDCM • Mathematical Tasks - Walking Club - Making Juice - •	• capacity • meter • gram • liter • kilo- • centi- • milli- •
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets	**7.RP.A.1** Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units.	Bloom: Hess: DOK Level EQ: •	I will be able to: • compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other	• ratio • unit rate • complex fraction •

Ganado Unified School District

6th Grade Math and 6th Grade Honors Math

PACING Guide SY 2017-2018

• Games •	For example, if a person walks ½ mile in ¼ hour, compute the unit rate as the complex fraction ½/¼ miles per hour, equivalently 2 miles per hour.	•	quantities measured in like or different units • ACTIVITIES: •	
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	**7.RP.A.2** Recognize and represent proportional relationships between quantities.	Bloom: Hess: DOK Level EQ: • •	I will be able to: • recognize and represent proportional relationships between quantities. • ACTIVITIES: •	• proportion • Means and Extremes (Cross Multiplication) •
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	**7.RP.A.2a** Decide whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table or graphing on a coordinate plane and observing whether the graph is a straight line through the origin.	Bloom: Hess: DOK Level EQ: • •	I will be able to: • decide whether two quantities are in a proportional relationship ACTIVITIES: •	• origin • x-coordinate • y-coordinate • quadrant • x-axis • y-axis •
• ConnectED • Galileo • Versa-Tiles	**7.RP.A.2b** Identify the constant of proportionality (unit rate) in tables,	Bloom: Hess: DOK Level	I will be able to: • identify the constant of proportionality (unit rate) in	• Constant of Proportionality • table

• Manipulatives • Worksheets • Games •	graphs, equations, diagrams, and verbal descriptions of proportional relationships.	EQ: • •	tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships. • ACTIVITIES: •	• graphs • equations •
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	**7.RP.A.2c** Represent proportional relationships by equations. For example, if total cost *t* is proportional to the number *n* of items purchased at a constant price *p*, the relationship between the total cost and the number of items can be expressed as t = *pn*.	Bloom: Hess: DOK Level EQ: • •	I will be able to: • represent proportional relationships by equations. • ACTIVITIES: •	• equation • proportion •
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	**7.RP.A.2d** 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.	Bloom: Hess: DOK Level EQ: • •	I will be able to: • 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. •	• Constant of Proportionality • graphs • equations •

Ganado Unified School District

6th Grade Math and 6th Grade Honors Math

PACING Guide SY 2017-2018

			ACTIVITIES: •	
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	**7.RP.A.3** Use proportional relationships to solve multistep ratio and percent problems. **Examples**: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.	Bloom: Hess: DOK Level EQ: • •	I will be able to: • represent proportional relationships by equations. • ACTIVITIES: •	• proportion • simple interest • percent increase • percent decrease • markup • markdown • sales tax •
• ConnectED • Galileo • Versa-Tiles • Manipulatives *Cuisenaire Rods* • Worksheets • Games •	6.NS.A.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*	Bloom: Application Hess: DOK Level 2 EQ: • How can numbers be broken apart into factors? • How can fractions be represented and simplified? • How are decimals and fractions related?	I will be able to: • interpret quotients of fractions • compute quotients of fractions • solve word problems involving division of fractions by fractions • ACTIVITIES: • Foldable comparing Improper and Mixed Numbers	• fraction • numerator • denominator • equivalent fractions • simplest form; lowest terms; simplifying; reducing • proper fraction • improper fraction • mixed number • terminating decimal

Ganado Unified School District

6th Grade Math and 6th Grade Honors Math

PACING Guide SY 2017-2018

	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?	• What are standard procedures for estimating and finding products of fractions and mixed numbers? • What are standard procedures for estimating and finding quotients of fractions and mixed numbers?	•	• repeating decimal • like denominators • unlike denominators • least common denominator (LCD) • reciprocals •
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games	6.NS.B.2 Fluently divide multi-digit **numbers** using the standard algorithm.	Bloom: Application Hess: DOK Level 2 EQ: • What are whole numbers place values? • How can whole numbers be written, compared, and ordered?	I will be able to: • subtract with regrouping • multiply multi-digit numbers • divide multi-digit numbers • use standard algorithm • use Algebra notation to show different ways to write multiplication and division ACTIVITIES: •	• divisor • dividend • quotient • Traditional Method • Partial Quotients • Double Down Division •

Ganado Unified School District

6th Grade Math and 6th Grade Honors Math

PACING Guide SY 2017-2018

• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	6.NS.B.3 Fluently add, subtract, multiply, and divide multi-digit **decimals** using the standard algorithm for each operation.	Bloom: Application Hess: DOK Level 2 EQ: • What are whole numbers/decimal place values? • How can whole numbers/decimals be written, compared, and ordered? • How are sums and differences involving decimals estimated and found?	I will be able to: • add multi-digit decimals • subtract multi-digit decimals • multiply multi-digit decimals • divide multi-digit decimals • use standard algorithm • ACTIVITIES: • Adding, Subtracting, Multiplying, and Dividing Decimals foldable • •	• decimal • tenths • hundredths • thousandths • periods • estimate • rounding • compatible numbers • terminating decimals • repeating decimals • non-terminating decimal
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	6.NS.B.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 with no common	Bloom: Application Hess: DOK Level 2 EQ: • How can numbers be broken apart into factors?	I will be able to: • find the GCF of 2 whole numbers ≤ 100 • find the LCM of 2 whole numbers ≤ 12 • use the distributive property to express the sum of 2 whole numbers	• factor • multiple • divisible • prime number • composite number • prime factorization

PACING Guide SY 2017-2018

	factor. For example, express 36 + 8 as 4(9 +2).	• How can fractions be represented and simplified? • What are standard procedures for estimating and finding sums and differences of fractions and mixed numbers? •	• ACTIVITIES: • Factor "Trees" for the hallway • Foldable comparing GCF and LCM •	• factor tree • greatest common factor (GCF) • common multiple • least common multiple (LCM) •
Q1 - Week 8	Reteach and Re-assess			•
Q1 - Week 9	Reteach and Re-assess			•
Q1 - Week 10	Reteach and Re-assess			•

Ganado Unified School District

6th Grade Math and 6th Grade Honors Math

PACING Guide SY 2017-2018

QUARTER TWO				
Q2				•
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games	6.NS.C.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.	Bloom: Application & Comprehension Hess: DOK Level 2 EQ: • How are integers related to whole numbers? •	I will be able to: • understand that +/- numbers are used to describe quantities having opposite directions or values • use +/- numbers to represent quantities in real-world context • explain the meaning of 0 in each situation • ACTIVITIES • Use number lines both horizontally and vertically • Include positive and negative numbers • Foldable – showing different positive/negative examples •	• opposites • integer(s) • absolute value •
• ConnectED • Galileo	6.NS.C.6	Bloom: Application & Comprehension	I will be able to:	• opposites • integer(s)

Ganado Unified School District

6th Grade Math and 6th Grade Honors Math

PACING Guide SY 2017-2018

• Versa-Tiles • Manipulatives • Worksheets • Games •	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.	Hess: DOK Level 2 EQ: • How are integers related to whole numbers? •	• understand a rational number as a point on the number line • extend number line diagrams and coordinate axes familiar from previous grades • ACTIVITIES •	• absolute value • rational number(s) • coordinate plane • axes • x-axis • y-axis • quadrant(s) • ordered pair(s) • origin •
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	6.NS.C.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.	Bloom: Comprehension Hess: DOK Level 2 EQ: • How are integers related to whole numbers? •	I will be able to: • recognize opposite signs of numbers indicating locations on opposite sides of 0 • recognize that the opposite of the opposite of a number is the number itself •	• opposites • integer(s) • absolute value •
• ConnectED • Galileo • Versa-Tiles • Manipulatives	6.NS.C.6 b. Understand signs of numbers in ordered pairs as indicating locations in quadrants of the	Bloom: Comprehension Hess: DOK Level 2	I will be able to: • understand signs of numbers in ordered pairs as indicating	• coordinate plane • x-axis • y-axis • quadrant(s)

Ganado Unified School District

6th Grade Math and 6th Grade Honors Math

PACING Guide SY 2017-2018

• Worksheets • Games •	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.	EQ: • How are integers related to whole numbers? •	locations in quadrants of the coordinate plane • recognize that when two ordered pairs differ only be signs, the locations of the points are related by reflections across one or both axes •	• ordered pairs • origin •
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	6.NS.C.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.	Bloom: Application Hess: DOK Level 1 EQ: • How are integers related to whole numbers? •	I will be able to: • find integers on a horizontal or vertical number line • position integers on a horizontal or vertical number line • find pairs of integers and other rational numbers on a coordinate plane • position pairs of integers and other rational numbers on a coordinate plane •	• opposites • integer(s) • absolute value • rational number(s) • coordinate plane • x-axis • y-axis • quadrant(s) • ordered pair(s) • origin •
• ConnectED • Galileo • Versa-Tiles	6.NS.C.7 Understand ordering and absolute value of rational numbers.	Bloom: Comprehension Hess: DOK Level 2	I will be able to: • understand ordering of rational numbers	• opposites • integer(s) • absolute value

• Manipulatives • Worksheets • Games •		EQ: • How are integers related to whole numbers? •	• understand absolute value of rational numbers •	• rational number(s) •
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	6.NS.C.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.*	Bloom: Application Hess: DOK Level 2 EQ: • How are integers related to whole numbers? •	I will be able to: • interpret statements of inequality as statements about the relative position of two numbers on a number line •	• rational number(s) • inequality •
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	6.NS.C.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.*	Bloom: Application Hess: DOK Level 2 EQ: • How are integers related to whole numbers? •	I will be able to: • write statements of order for rational numbers in real-world context • interpret statements of order for rational numbers in real-world context • explain statements of order for rational numbers in real-world context	• rational number(s) •

Ganado Unified School District

6th Grade Math and 6th Grade Honors Math

PACING Guide SY 2017-2018

• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	6.NS.C.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.*	Bloom: Comprehension & Application Hess: DOK Level 2 EQ: • How are integers related to whole numbers? •	I will be able to: • understand the absolute value of a rational number as its distance from 0 on a number line • interpret absolute value as magnitude for a +/- quantity in a real-world situation •	• opposites • integer(s) • absolute value • rational number(s) •
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	6.NS.C.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.*	Bloom: Application & Comprehension Hess: DOK 2 EQ: • How are integers related to whole numbers? •	I will be able to: • distinguish comparisons of absolute value from statements about order • •	• absolute value •
• ConnectED • Galileo • Versa-Tiles • Manipulatives	6.NS.C.8 Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane.	Bloom: Application Hess: DOK Level 2	I will be able to: • solve real-world problems by graphing points in all four	• coordinate plane • x-axis • y-axis • quadrant(s)

Ganado Unified School District

6th Grade Math and 6th Grade Honors Math

PACING Guide SY 2017-2018

• Worksheets • Games •	Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate	EQ: • How are integers related to whole numbers? •	quadrants of the coordinate plane • solve mathematical problems by graphing points in all four quadrants of the coordinate plane • include use of coordinates to find distances between points with the same first coordinate or the same second coordinate • include use of absolute value to find distances between points with the same first coordinate or the same second coordinate •	• ordered pairs • origin •
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	6.NS.C.9: Convert between expressions for positive rational numbers, including fractions, decimals, and percents.	Bloom: Application Hess: DOK Level 2 EQ: •	I will be able to: • convert between expressions for + rational numbers including fractions, decimals, and percents • *While **reviewing** decimals and fractions, throw in percents!*	• fraction • decimal • percent
• ConnectED • Galileo • Versa-Tiles	**7NS.A.1** Apply and extend previous understanding of addition and	Bloom: Hess: DOK Level	I will be able to: • apply and extend previous understanding of addition	• rational number(s)

Ganado Unified School District

6th Grade Math and 6th Grade Honors Math

PACING Guide SY 2017-2018

• Manipulatives • Worksheets • Games •	subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.	EQ: •	and subtraction to add and subtract rational numbers; • represent addition and subtraction on a horizontal or vertical number line diagram. •	• vertical number line • horizontal number line •
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	**7NS.A.1a** Describe situations in which opposite quantities combine to make 0. For example, a hydrogen atom has 0 charge because its two constituents are oppositely charged.	Bloom: Hess: DOK Level EQ: •	I will be able to: • Describe situations in which opposite quantities combine to make 0. •	• Property of Opposites •
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	**7NS.A.1b** Understand p + q as the number located a distance |q| from p, in the positive or negative direction depending on whether q 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.	Bloom: Hess: DOK Level EQ: •	I will be able to: • understand p + q as the number located a distance |q| from p, in the positive or negative direction depending on whether q is positive or negative. • show that a number and its opposite have a sum of 0 (are additive inverses).	• combine •

PACING Guide SY 2017-2018

			• interpret sums of rational numbers by describing real-world contexts. •	
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	**7NS.A.1c** Understand subtraction of rational numbers as adding the additive inverse, p – q = p + (-q). 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.	Bloom: Hess: DOK Level EQ: •	I will be able to: • understand subtraction of rational numbers as adding the additive inverse, p – q = p + (-q). • show that the distance between two rational numbers on the number line is the absolute value of their difference. • apply this principle in real-world contexts. •	• additive inverse • absolute value • •
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	**7NS.A.1d** Apply properties of operations as strategies to add and subtract rational numbers.	Bloom: Hess: DOK Level EQ: •	I will be able to: • apply properties of operations as strategies to add and subtract rational numbers. •	• Associative Property • Commutative Property • Additive Identity • Property of Opposites

Ganado Unified School District

6th Grade Math and 6th Grade Honors Math

PACING Guide SY 2017-2018

• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	**7NS.A.2** Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers.	Bloom: Hess: DOK Level EQ: •	I will be able to: • apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. •	• rational number(s) •
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	**7NS.A.2a** 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.	Bloom: Hess: DOK Level EQ: •	I will be able to: • 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..	• Distributive Property • Multiplicative Identity •
• ConnectED • Galileo • Versa-Tiles	**7NS.A.2b** Understand that integers can be divided, provided that the divisor is	Bloom: Hess: DOK Level	I will be able to: • understand that integers can be divided, provided that the	• rational number(s)

• Manipulatives • Worksheets • Games •	not zero, and every quotient of integers (with non-zero divisor) is a rational number. If *p* and *q* are integers, then –(*p*/*q*) = (-*p*)/*q* = *p*/(-*q*). Interpret quotients of rational numbers by describing real-world contexts.	EQ: •	divisor is not zero, and every quotient of integers (with non-zero divisor) is a rational number. If *p* and *q* are integers, then –(*p*/*q*) = (-*p*)/*q* = *p*/(-*q*). • interpret quotients of rational numbers by describing real-world contexts. •	• undefined quotient •
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	**7NS.A.2c** Apply properties of operations as strategies to multiply and divide rational numbers.	Bloom: Hess: DOK Level EQ: •	I will be able to: • apply properties of operations as strategies to multiply rational numbers. • apply properties of operations as strategies to divide rational numbers. •	• Associative Property • Commutative Property • Additive Identity • properties of operations • rational number(s) •
• ConnectED • Galileo • Versa-Tiles • Manipulatives	**7NS.A.2d** Convert a rational number to a decimal using long division; know that the decimal form of a rational	Bloom: Hess: DOK Level	I will be able to: • convert a rational number to a decimal using long division;	• terminating decimal • repeating decimal •

• Worksheets • Games •	number terminates in 0s or eventually repeats.	EQ: •	• know that the decimal form of a rational number terminates in 0s or eventually repeats. •	
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	**7NS.A.3** Solve real-world and mathematical problems involving the four operations with rational numbers.	Bloom: Hess: DOK Level EQ: •	I will be able to: • solve real-world and mathematical problems involving the four operations with rational numbers. •	• rational number(s) • complex fraction •
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	6.EE.A.1 Write and evaluate numerical expressions involving whole-number exponents.	Bloom: Application & Evaluation Hess: DOK Level 2 & 3 EQ: • What are whole numbers place values? • How can whole numbers be written, compared, and ordered?	I will be able to: • read and write numbers to trillions in standard, expanded, and word form and give the values of specific digits • write numerical expressions involving whole-number exponents • evaluate numerical expressions involving whole-number exponents •	• standard form • expanded form • word form • trillion • period • base • exponent • power • exponential form • squared • cubed • root

Ganado Unified School District

6th Grade Math and 6th Grade Honors Math

PACING Guide SY 2017-2018

		•	ACTIVITIES: •	•
• ConnectED • Galileo • Versa-Tiles • Manipulatives *bookmarks* • Worksheets • Games •	6.EE.A.2 Write, read, and evaluate expressions in which letters stand for numbers.	Bloom: Application Hess: DOK Level 2 EQ: • What are algebraic expressions and how can they be written and evaluated? • What arithmetic number relationships, called properties, are always true? •	I will be able to: • write expressions in which letters stand for numbers • read expressions in which letters stand for numbers • evaluate expressions in which letters stand for numbers • ACTIVITIES: •	• variable • term • variable term • constant term • coefficient • algebraic expression • evaluate • substitution • input/output table •
• ConnectED • Galileo • Versa-Tiles • Manipulatives *bookmarks* • Worksheets • Games •	6.EE.A.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.*	Bloom: Application & Evaluation Hess: DOK Level 2 EQ:	I will be able to: • write expressions that record operations with numbers and with letters standing for numbers •	• variable • term • variable term • constant term • coefficient • algebraic expression

Ganado Unified School District

6th Grade Math and 6th Grade Honors Math

PACING Guide SY 2017-2018

		• What are algebraic expressions and how can they be written and evaluated? • What arithmetic number relationships, called properties, are always true? •	ACTIVITIES: •	• evaluate • substitution • input/output table •
• ConnectED • Galileo • Versa-Tiles • Manipulatives *bookmarks* • Worksheets • Games •	6.EE.A.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*	Bloom: Comprehension Evaluation & Application Hess: DOK Level 1 DOK Level 3 EQ: • What are algebraic expressions and how can they be written and evaluated? • What arithmetic number	I will be able to: • identify parts of an expression using mathematical terms • view one or more parts of an expression as a single entity • ACTIVITIES: •	• factor • variable • term • variable term • constant term • coefficient • algebraic expression • evaluate • substitution •

Ganado Unified School District

6th Grade Math and 6th Grade Honors Math

PACING Guide SY 2017-2018

		relationships, called properties, are always true? •		
• ConnectED • Galileo • Versa-Tiles • Manipulatives *bookmarks* • Worksheets • Games •	6.EE.A.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 $V = s^3$ and $A = 6 s^2$ to find the volume and surface area of a cube with sides of length s = ½*	Bloom: Comprehension Evaluation & Application Hess: DOK Level 3 EQ: • What are algebraic expressions and how can they be written and evaluated? • What arithmetic number relationships, called properties, are always true? •	I will be able to: • 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) • ACTIVITIES: •	• factor • variable • term • variable term • constant term • coefficient • algebraic expression • evaluate • substitution •

Ganado Unified School District

6th Grade Math and 6th Grade Honors Math

PACING Guide SY 2017-2018

• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	6.EE.A.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.*	Bloom: Application Hess: DOK Level 2 EQ: • What are algebraic expressions and how can they be written and evaluated? • What arithmetic number relationships, called properties, are always true? •	I will be able to: • apply the properties of operations to generate equivalent expressions • ACTIVITIES: • (**Review**) Board Sort Activity – Algebra Notation for multiplication and division •	• Commutative Property of Addition • Commutative Property of Multiplication • Associative Property of Addition • Associative Property of Multiplication • Identity Property of Addition • Identity Property of Multiplication • Order of Operations • Distributive Property • evaluate • substitution • equation
• ConnectED • Galileo • Versa-Tiles	6.EE.A.4 Identify when two expressions are equivalent (i.e., when the two	Bloom: Comprehension Hess: DOK Level 2	I will be able to: • identify when two expression are equivalent	• equation

PACING Guide SY 2017-2018

• Manipulatives • Worksheets • Games	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.*	EQ: • What procedures can be used to solve equations? •	•	• Addition Property of Equality • Subtraction Property of Equality • Multiplication Property of Equality • Division Property of Equality •
Q2 - Week 8	Reteach and Re-assess			•
Q2 - Week 9	Reteach and Re-assess			•
Q2 - Week 10	Reteach and Re-assess			•
QUARTER THREE				
Q3				•
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games	6.EE.B.5 Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the	Bloom: Comprehension & Application Hess: DOK Level 2	I will be able to: • understand solving an equation or inequality as a process of answering a question	• inequality • inverse relationship •

•	equation or inequality true? Use substitution to determine whether a given number in a specified set makes an equation or inequality true.	EQ: • How are sums, differences, products, and quotients involving decimals estimated and found? • What procedures can be used to solve equations? • How can equations be graphed? • What patterns can be found in the graphs of equations? •	• use substitution to determine whether a given number in a specified set makes an equation or inequality true •	
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	6.EE.B.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 specific set.	Bloom: Comprehension & Application Hess: DOK Level 2 EQ: • What are algebraic expressions and how can they be	I will be able to: • use variables to represent numbers • write expressions when solving a real-world • write expressions when solving mathematical problem	• variable • coefficient • algebraic expression • inequality • inverse relationship •

Ganado Unified School District

6th Grade Math and 6th Grade Honors Math

PACING Guide SY 2017-2018

		written and evaluated? • What arithmetic number relationships, called properties, are always true? • How are sums, differences, products, and quotients involving decimals estimated and found? • What procedures can be used to solve equations? •	• understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specific set •	
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	6.EE.B.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.	Bloom: Application Hess: DOK Level 2 EQ: • What procedures can be used to solve equations?	I will be able to: • solve real-world problems by writing equations of the form $x + p = q$ and $px = q$ for cases in which p, q and x are all nonnegative rational numbers • solve mathematical problems by solving	• equation • Addition Property of Equality • Subtraction Property of Equality

Ganado Unified School District

6th Grade Math and 6th Grade Honors Math

PACING Guide SY 2017-2018

		• What are standard procedures for estimating and finding quotients of fractions and mixed numbers? • How can equations be graphed? • What patterns can be found in the graphs of equations? •	equations of the form $x + p = q$ and $px = q$ for cases in which p, q and x are all nonnegative rational numbers •	• Multiplication Property of Equality • Division Property of Equality • inverse relationship •
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	6.EE.B.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	Bloom: Application & Comprehension Hess: DOK Level 2 EQ: • How can equations be graphed? • What patterns can be found in the graphs of equations?	I will be able to: • 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 hat inequalities of the form $x > c$ or $x < c$ have infinitely many solutions; represent solutions of such inequalities on number line diagrams	• inequality •

Ganado Unified School District

6th Grade Math and 6th Grade Honors Math

PACING Guide SY 2017-2018

• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	6.EE.C.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.*	Bloom: Application & Analysis Hess: DOK Level 3 EQ: • How can equations be graphed? • What patterns can be found in the graphs of equations? •	I will be able to: • 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 •	• formula • T-table • linear equation • dependent variable • independent variable •
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games	**7EE.A.1** Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.	Bloom: Hess: DOK Level EQ: •	I will be able to: • apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.	• • •

Ganado Unified School District

6th Grade Math and 6th Grade Honors Math

PACING Guide SY 2017-2018

• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	**7EE.A.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. For example, *a +0.05a = 1.05a means that "increase by 5%" is the same as "multiply by 1.05."*	Bloom: Hess: DOK Level EQ: •	I will be able to: • 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. •	• • •
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	**7EE.B.3** Solve multi-step real-world and mathematical problems posed with positive and negative rational numbers in any form (whole number, 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. For example: if a woman making $25 an hour gets a 10% raise, will she make an additional 1/10 of her salary an hour, or $2.50, for a new salary of $27.50. If you want to place a towel bar 9 ¾ inches long in the	Bloom: Hess: DOK Level EQ: •	I will be able to: • solve multi-step real-world and mathematical problems posed with positive and negative rational numbers in any form (whole number, fractions, and decimals), using tools strategically. • apply properties of operations to calculate with numbers in any form; convert between forms as appropriate. • assess the reasonableness of answers using mental computation and estimation strategies. •	• expression • equation •

	center of a door that is 27 ½ inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used to check on the exact computation.			
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	**7EE.B.4** 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.	Bloom: Hess: DOK Level EQ: •	I will be able to: • use variables to represent quantities in a real-world or mathematical problem • construct simple equations and inequalities to solve problems by reasoning about the quantities. •	• variable • equation • inequality •
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	**7EE.B.4a** 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. For example, the perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width?	Bloom: Hess: DOK Level EQ: •	I will be able to: • 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	• two-dimensional shapes • three-dimensional shapes • algebraic solution • arithmetic solution •

Ganado Unified School District

6th Grade Math and 6th Grade Honors Math

PACING Guide SY 2017-2018

			sequence of the operations used in each approach. •	
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	**7EE.B.4b** 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. For example: As a salesperson, you are paid $50 per week plus $3 per sale. This week you want your pay to be at least $100. Write an inequality for the number of sales you need to make, and describe the solutions.	Bloom: Hess: DOK Level EQ: •	I will be able to: • 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. • interpret it in the context of the problem. •	• inequality • rational number(s) • number line •
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	6.G.A.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	Bloom: Application Hess: DOK Level 2 EQ: • What are standard procedures for estimating and finding products of	I will be able to: • find the area of right triangles • find the area of other triangles • find the area of special quadrilaterals	• vertex • acute angle • right angle • obtuse angle • straight angle • acute triangle • right triangle • obtuse triangle

Ganado Unified School District

6th Grade Math and 6th Grade Honors Math

PACING Guide SY 2017-2018

	problems.	fractions and mixed numbers? • How can angles be measured, drawn, and classified? • What are special shapes and how can they be described and compared? • What are the meanings of perimeter and area? • How can the perimeter and area of certain shapes be found?	• find the area of polygons by composing into rectangles • find the area of polygons by decomposing into triangles and other shapes • apply these techniques in the context of solving real-world problems • apply these techniques in the context of solving mathematical problems •	• equilateral triangle • isosceles triangle • scalene triangle • trapezoid • parallelogram • rhombus • rectangle • square • area • length • width • 2-dimensional figures
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	6.G.A.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	Bloom: Application Hess: DOK Level 2 EQ: • What is the meaning of volume and how can volume be found? • What is the meaning of surface area and	I will be able to: • 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 • 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	• formula • volume • cubed •

	mathematical problems	how can surface area be found? • How can the volume of certain figures be found? •	right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems •	
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	6.G.A.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.	Bloom: Application Hess: DOK Level 2 EQ: • How are integers related to whole numbers? • How can angles be measured, drawn, and classified? • What are special shapes and how can they be described and compared? •	I will be able to: • 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 •	• point • line • ray • line segment • congruent line segments • midpoint • intersecting lines • plane • parallel lines • perpendicular lines •
• ConnectED • Galileo • Versa-Tiles • Manipulatives	6.G.A.4 Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the	Bloom: Application Hess: DOK Level 2	I will be able to: • represent three-dimensional figures using nets made up of rectangles and triangles	• cone • cylinder • edge

• Worksheets • Games •	surface area of these figures. Apply these techniques in the context of solving real-world and mathematical problems.	EQ: • What is the meaning of area? • How can the area of certain shapes be found? • What is the meaning of volume and how can volume be found? • What is the meaning of surface area and how can surface area be found? • How can the volume of certain figures be found?	• use the nets to find the surface area of these figures • apply these techniques in the context of solving real-world and mathematical problems •	• faces • net • polyhedron • prism • pyramid • sphere • vertex • surface area • length • width • height • 3-dimensional figures
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	**7.G.A.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.	Bloom: Hess: DOK Level EQ: •	I will be able to: • solve problems involving scale drawings of geometric figures, including • compute actual lengths and areas from a scale drawing and	• scale • Constant of Proportionality •

			• reproduce a scale drawing at a different scale. •	
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	**7.G.A.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.	Bloom: Hess: DOK Level EQ: •	I will be able to: • 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. • notice when the conditions determine a unique triangle, more than one triangle, or no triangle. •	• triangles •
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	**7.G.A.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.	Bloom: Hess: DOK Level EQ: •	I will be able to: • describe the two-dimensional figures that result from slicing three-dimensional figures, as in plane sections of right rectangular prisms and right rectangular pyramids.	• two-dimensional shapes • three-dimensional shapes • polygons • slicing • cross section

Ganado Unified School District

6th Grade Math and 6th Grade Honors Math

PACING Guide SY 2017-2018

			•	•
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	**7.G.B.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.	Bloom: Hess: DOK Level EQ: •	I will be able to: • know the formulas for the area and circumference of a circle. • use them to solve problems. • give an informal derivation of the relationship between the circumference and area of a circle. •	• circumference • area •
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	**7.G.B.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.	Bloom: Hess: DOK Level EQ: •	I will be able to: • 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. •	• supplementary • complementary • vertical angles • adjacent angles •
• ConnectED • Galileo • Versa-Tiles	**7.G.B.6** Solve real-world and mathematical problems involving area, volume, and	Bloom: Hess: DOK Level	I will be able to: • solve real-world and mathematical problems	• two-dimensional shapes

Ganado Unified School District

6th Grade Math and 6th Grade Honors Math

PACING Guide SY 2017-2018

• Manipulatives • Worksheets • Games •	surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.	EQ: •	involving area, volume, and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms. •	• three-dimensional shapes • triangles • quadrilaterals • polygons • area • cubes • volume • right prisms • surface area • net •
Q3 - Week 8	Reteach and Re-assess			•
Q3 - Week 9	Reteach and Re-assess			•
Q3 - Week 10	Reteach and Re-assess			•

Ganado Unified School District

6th Grade Math and 6th Grade Honors Math

PACING Guide SY 2017-2018

QUARTER FOUR				
Q4				•
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	6.SP.A.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.*	Bloom: Comprehension Hess: DOK Level 1 EQ: • How can graphs be used to represent data and answer questions? •	I will be able to: • recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers •	• statistical question •
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	6.SP.A.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.	Bloom: Comprehension Hess: DOK Level 1 EQ: • How can graphs be used to represent data and answer questions? •	I will be able to: • 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 •	• data distribution • outlier •
• ConnectED • Galileo	6.SP.A.3	Bloom: Comprehension	I will be able to:	• mean • average

Ganado Unified School District

6th Grade Math and 6th Grade Honors Math

PACING Guide SY 2017-2018

• Versa-Tiles • Manipulatives • Worksheets • Games •	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.	Hess: DOK Level 2 EQ: • How can graphs be used to represent data and answer questions? •	• 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 •	• absolute deviation • interquartile range (IQR) • mean absolute deviation •
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	6.SP.B.4 Display numerical data in plots on a number line, including dot plots, histograms, and box plots.	Bloom: Application Hess: DOK Level 2 EQ: • How can graphs be used to represent data and answer questions? •	I will be able to: • display numerical data in plots on a number line, including dot plots • display numerical data in plots on a number line, including histograms • display numerical data in plots on a number line, including box plots •	• frequency table • histogram • box plot • quartiles • dot plot • number line •
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games	6.SP.B.5 Summarize numerical data sets in relation to their context, such as by:	Bloom: Synthesis Hess: DOK Level 2 & 3 EQ:	I will be able to: • summarize numerical data sets in relation to their context •	• •

Ganado Unified School District

6th Grade Math and 6th Grade Honors Math

PACING Guide SY 2017-2018

•		• How can graphs be used to represent data and answer questions? •		
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	6.SP.B.5 a. Reporting the number of observations.	Bloom: Synthesis Hess: DOK Level 2 & 3 EQ: • How can graphs be used to represent data and answer questions? •	I will be able to: • report the number of observations • •	• frequency table • histogram •
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	6.SP.B.5 b. Describing the nature of the attribute under investigation, including how it was measured and its units of measurement.	Bloom: Synthesis Hess: DOK Level 2 & 3 EQ: • How can graphs be used to represent data and answer questions? •	I will be able to: • describe the nature of the attribute under investigation, including how it was measured and its units of measurement • •	• statistical question •
• ConnectED • Galileo	6.SP.B.5	Bloom: Synthesis	I will be able to:	• mean • average

Ganado Unified School District

6th Grade Math and 6th Grade Honors Math

PACING Guide SY 2017-2018

• Versa-Tiles • Manipulatives • Worksheets • Games •	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.	Hess: DOK Level 2 & 3 EQ: • How can graphs be used to represent data and answer questions? •	• give quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation) • describe any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered •	• median • mode • range • absolute deviation • interquartile range (IQR) • mean absolute deviation •
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	6.SP.B.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 was gathered.	Bloom: Synthesis Hess: DOK Level 2 & 3 EQ: • How can graphs be used to represent data and answer questions? •	I will be able to: • relate the choice of measures of center and variability to the shape of the data distribution and the context in which the data was gathered • •	• •
• ConnectED • Galileo • Versa-Tiles • Manipulatives	**7.SP.A.1**	Bloom: Hess: DOK Level	I will be able to: •	• •

• Worksheets • Games •		EQ: • •		
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	**7.SP.A.2**	Bloom: Hess: DOK Level EQ: • •	I will be able to: • •	• •
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	**7.SP.B.3**	Bloom: Hess: DOK Level EQ: • •	I will be able to: • •	• •
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	**7.SP.B.4**	Bloom: Hess: DOK Level EQ: • •	I will be able to: • •	• •

Ganado Unified School District

6th Grade Math and 6th Grade Honors Math

PACING Guide SY 2017-2018

• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	**7.SP.C.5**	Bloom: Hess: DOK Level EQ: • •	I will be able to: • •	• •
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	**7.SP.C.6**	Bloom: Hess: DOK Level EQ: • •	I will be able to: • •	• •
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	**7.SP.C.5**	Bloom: Hess: DOK Level EQ: • •	I will be able to: • •	• •
• ConnectED • Galileo • Versa-Tiles • Manipulatives	**7.SP.C.7a**	Bloom: Hess: DOK Level	I will be able to: • •	• •

PACING Guide SY 2017-2018

• Worksheets • Games •		EQ: • •		
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	**7.SP.C.7b**	Bloom: Hess: DOK Level EQ: • •	I will be able to: • •	• •
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	**7.SP.C.8**	Bloom: Hess: DOK Level EQ: • •	I will be able to: • •	• •
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	**7.SP.C.8a**	Bloom: Hess: DOK Level EQ: • •	I will be able to: • •	• •

Ganado Unified School District

6th Grade Math and 6th Grade Honors Math

PACING Guide SY 2017-2018

• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	**7.SP.C.8b**	Bloom: Hess: DOK Level EQ: • •	I will be able to: • •	• •
• ConnectED • Galileo • Versa-Tiles • Manipulatives • Worksheets • Games •	**7.SP.C.8c**	Bloom: Hess: DOK Level EQ: • •	I will be able to: • •	• •
Q4 - Week 8				•
Q4 - Week 9				•
Q4 - Week 10				•

Goal: Test-In-Hand

(1) Give **pretest** on first day of quarter; give **only** one class hour to complete
(2) 10 math standards in 30 days (6 weeks); 3 days per standard
(3) 5 questions per standard on Galileo = 50 questions; 25 questions per day
(4) If only 2-3 standards need retaught, pull standards from Q4 into RETEACH weeks