Ganado Unified School District
(MATH/2nd Grade)

MATH PACING Guide SY 2018-2019

Timeline & Resources	AZ College and Career Readiness Standard	Essential Question (HESS Matrix)	Learning Goal	Vocabulary (Content/Academic)
1st Quarter			**Aug/ Sept/ Oct - Lessons 1,2,3**	
I-1st - M-2nd BM 1-4 Lessons: 5-1, 5-2, 5-3, 5-4,	**2.NBT.A.1.** Understand that the three digits of a three-digit number represent amounts of hundreds, tens, ones; e.g. 706 equals 7 Hundreds 0 Tens, and 6 Ones. Understand the following special cases: a. 100 can be thought of as a bundle of ten tens – called a "hundred". b. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones.	What do the three digits of a three-digit number represent in amounts of hundred, tens & ones? How can we use place value?	Build models of numbers to 1,000. Count hundreds, tens, & ones. Tell how many hundreds, tens, and ones are shown. Write how many hundreds, tens, and ones. Then write the number.	Hundreds Thousands Ones Tens Digits Number word place value
I-1st - M-2nd BM 1-4 Lessons: 2-1, 2-2, 2-3, 5-6	**2.NBT.A.2.** Count within 1000; skip-count by 2s, 5s, 10s, and 100s.	What does skip counting by 5s, 10s, and 100s mean? What number comes next? What is the pattern? Do you notice a pattern in the hundred's chart?	Skip count by 5s, 10s, and 100s. Write the missing numbers in a sequence.	Skip Counting pattern groups equal groups
I-2nd – M-2nd Lesson(s): 5-2, 5-3, 5-4, 5-5	**2.NBT.A.3.** Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.	How can I add repeated numbers? Identify and use words, models, and expanded	Read, write, and model numbers to 1,000.	Expanded form Standard form Number word digits

		form to represent number to 999. How can I build on arrays to add? How can I draw a picture to help me problem solve?		place value base ten blocks thousand ones tens
I-2nd – M-2nd **Lesson(s):** **5-7**	**2.NBT.A.4.** Compare two three – digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons.	How do I compare three-digit numbers based on meanings of the hundreds, tens, and ones digits, using <, >, and = symbols? How can I use place value to compare numbers and amounts.	Compare numbers and amounts using symbols. Understand the representation of <, >, and = symbols Understand place value to accurately compare amounts from 0 to 999.	Compare Order equal to greater than less than fewer than more than
I-1st – M-1st **Lessons:** **2-6, 2-7** **BM1-2**	**2.OA.C.3.** Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.	How can I determine whether a group of objects has odd or even amount? How do I find the two equal addends that make up the sum of an even number?	Determine whether a group of objects has an odd or even number of members. Express in writing that an equation with two addends of equal amounts will have an even sum.	Odd Even sum addends groups objects amounts
1-1st – M-1st **Lessons:** **2-4, 2-5** **BM1-3**	**2.OA.C.4.** Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.	How can I add repeated numbers? How can equal groups of objects or items help me add? How can I build on arrays to add? How can I draw a picture to help me problem solve?	Use repeated addition; Build on arrays to add; and Draw a picture and write a number sentence to problem solve.	Rectangular Array Repeated addition rows columns equation sum equal

I-4th M-4th **Quiz** **Lesson** **12-8**	**2.G.A.2.** Partition a rectangle into rows and columns of same size squares and count to find the total number of them.	How can I divide rectangles into equal parts? How can I determine how many squares are needed to completely partition the rectangle?	Divide rectangles into equal squares. Determine how many squares are needed to completely partition the rectangle.	Rows Columns Equal Unequal
I-4th M-4th **Quiz** **Lesson** **12-7**	**2.G.A.3.** Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.	How can I determine whether a shape has been divided into equal or unequal parts? Why can shapes be identified using their parts like halves, thirds, and fourths?	Determine whether a shape has been divided into equal or unequal parts. Describe shapes using words like halves, thirds, and fourths.	Equal Unequal Halves Thirds Fourths
I-4th M-4th **Quiz** **Lesson** **12-1, 12-2, 12-3, 12-4, 12-5, 12-6**	**2.G.A.1.** Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes. (Sizes are compared directly or visually, not compared by measuring.)	How do I recognize different shapes? What are the parts of shapes I can identify? What is the difference between plan and different dimensional shapes?	Recognize different shapes Identify the parts of shapes Understand the difference between plan shapes and dimensional shapes	Pyramid Cylinder Cone Cube Rectangular prism Solid figure Flat surface Edge
I-1st – M-1st **Lessons:** **1-1, 1-2, 1-3, 1-4, 1-5, 1-6, 1-7, 1-8, 1-9, 1-10, 1-11, 1-12, 1-13, 2-1** **BM1-1**	**2.OA.B.2.** Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers. (See standard 1.OA.6 for a list of mental strategies).	What are the sums of all two one digit numbers?	Identify the sums of tall two one digit numbers.	Subtraction Sentence Minus Separate More Fewer

I-3rd M-3rd **BM 2-11 Lesson 11-11**	**2.MD.B.6.** Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, …, and represent whole-number sums and differences within 100 on a number line diagram.	How do I represent whole numbers using a number line? How do I represent whole numbers in sums and differences within 100 using a number line?	I will represent whole numbers as a length form 0 on a number line.	Regroup Number line Diagram Equal Sum Difference
I-2nd – M-3rd **Lesson(s):** **5-6, 6-3, 7-3**	**2.NBT.B.8.** Mentally add 10 or 100 to a given number 100-900, and mentally subtract 10 or 100 from a given number 100-900.	How do I mentally add and subtract help me solve math problems?	Mentally add and subtract or 100 to a given number.	Mental math Subtract

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2nd Quarter:			**Oct/ Nov/ Dec/ Lessons: 4, 5, 6**	
I-1st – M-4th **Quiz Lessons:** **1-1, 1-2, 1-3, 1-4, 1-5, 1-6, 1-7, 1-8, 1-9, 1-10, 1-11, 1-12, 1-13, 2-1, 2-2, 2-3, 3-1, 3-2, 3-3, 3-4, 3-5, 3-6, 3-7, 4-1, 4-2, 4-3, 4-4, 4-5, 4-6, 4-7, 4-8, 4-9**	**2.OA.A.1.** Use additional and subtraction with 100 to solve one and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem (See table 1).	How can I solve one to two step addition and subtraction word problems within 100? How can I fluently add and subtract within 20 using mental strategies?	Write addition and number sentences. Read and tell stories about joining. Write subtraction number sentences. Read and tell stories about separating and comparing. Analyze the connection between addition and subtraction within 20 using mental strategies.	Part Whole Add Sum Addition Sentences Plus Equals Join Subtract Difference
I-2nd – M-3rd	**2.NBT.B.7.** Add and subtract within 1000, using concrete models or drawings and strategies based on	How do I add and subtract within	Find parts of 100	Add Subtract

Lesson(s): **6-1, 6-2, 6-4, 6-5, 6-6, 6-7, 6-8, 7-1, 7-2, 7-4, 7-5, 7-6, 7-7, 7-8, 7-9**	place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and ten, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.	1,000 using a variety of strategies? How does the relationship between addition and subtraction help me solve math problems?	Add and subtract within 1,000 using a variety of strategies. Use the relationship between addition and subtraction to help solve math problems.	Concrete models Place value
I-1st – M-3rd **BM2-1** **Lessons:** **1-1, 11-5, 1-8, 1-12, 3-2, 3-3, 3-4, 3-6, 4-3, 4-4, 4-5, 6-2, 6-4, 6-5,k 6-6, 7-2, 7-4, 7-5, 7-6, 7-9**	**2.NBT.B.9.** Explain why addition and subtraction strategies work, using place value and the properties of operations. (Explanations may be supported by draw33ings or objects).	How do addition and subtraction strategies work using place value and the properties of operations? How can you explain by using drawings to support my answer?	Subtract/Add 1, 1, and 2 any given number. Use doubles fact to add/subtract. Use near doubles facts to add subtract Add in any order. Add three numbers. Make 10 to add/subtract. Use objects to problem solve. Think addition to 10 to subtract.	Doubles Near Doubles Addend Repeated addition
I-1st – M-2nd **BM 1-6** **Lessons:** **3-5, 3-6**	**2.NBT.B.6.** Add up to four two-digit numbers using strategies based on place value and properties of operations.	How can I add up to four two-digit numbers using strategies based on place value and operations?	I can add up to four two-digit numbers using strategies based on place value and operations.	Add Two Digit
I-1st – M-2nd **BM 1-5** **Lessons:** **1-1,3-2, 3-3, 3-4, 3-5, 4-1, 4-3, 4-4, 4-5, 4-6, 4-7**	**2.NBT.B.5.** Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.	What are various ways I can fluently add and subtract with 100?	Subtract/Add 1, 1, and 2 any given number. Use doubles fact to add/subtract.	Doubles Near Doubles Addend Number Sentence

		How do addition and subtraction strategies work using place value and the properties of operation? How can I think addition to subtract? How can doubles facts help me to add and subtract? Why does it help to make q0 to solve subtraction problems?	Use near doubles facts to add and subtract. Add in any order. Add three numbers. Make 10 to add/subtract, Use objects to problem solve. Think addition to 10 to subtract. Think addition to 18 to subtract. Use problem solving skills to decipher two question problem.	

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3 Quarter:			**Jan/Feb/ Mar – Lessons: 7,8,9,11**	
I-3rd – M3rd **BM 2-5 Lesson 9-1, 9-2, 9-3, 9-4, 9-5, 9-6**	**2.MD.10**. Draw graph and a bar graph (with single- unit scale) to represent a data set with up to four categories. Solve simple put together , take apart and compare problems using information presented in a bar graph	How can I use a picture graphs and bar graphs to solve a problem? How can I make and use a pictograph to solve problems? How can I represent a set of data in a tally chart and in a bar graph?	Draw a picture graph to represent data. Draw a bar graph to represent data. Solve problems using information on a bar graph.	Data Bar graph Use plot Pictograph Symbol

I-3rd – M3rd BM 2-3 Lesson 8-1, 8-2, 8-3, 8-4, 8-5 10-1, 10-2,10-3, 10-4, 10-5, 10-6	**2.MD.8**. Solve word problems involving dollar bills, quarters involving dimes. Nickels and pennies, using $ and cent symbols appropriately. Example: If you have 2 dimes and 3 pennies how many cents do you have? **2.MD.7**. Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m. [From cluster: work with time and money]	How can I identify the value of a group of coins? How can I solve word problems if money involving dollar bills a coins? How can I use the dollar and cent sign appropriately? How can I show the amount of money using different sets of coins? How can I make an organized list to find different combinations of coins?	Solve word problems involving dollar, bills and coins. Use dollar and cent signs appropriately. Show same amount of money using different sets of coins. Make an organized list to find different combinations of coins.	Coins Estimate Half a dollar Quarter Dime Nickel Penny Cents $ Greatest value Least value Even trade Dollar bill Dollar coin Decimal point Tally mark
I-3rd – M3rd BM 2-6 Lesson 11-1, 11-2, 11-3, 11-7, 11-8	**2.MD.1**. Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.	How can I measure the length of objects using nonstandard lengths? How can I estimate and measure items using inches? How can I measure length and height using centimeters?	Measure the length of objects using nonstandard lengths. Estimate and measure items using inches. Measure the length and height of objects using centimeters.	Unit Length Inch (in) Width Height Nearest inch Centimeters Nearest centimeters
I-3rd – M3rd BM 2-7 Lesson 11-5, 11-10	**2.MD.2.** Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.	How can I measure the lengths and heights of objects using different units? How do the two items measured relate to the unit chosen?	Measure the length and height of various objects using different units. Describe how the two measurements relate to the size of the unit chosen	Length Height unit

I-3rd – M3rd **BM 2-8 Lesson 11-1, 11-2, 11-3, 11-7, 11-8**	**2.MD.3**. Estimate lengths using units of inches, feet, centimeters and meters.	How can I estimate and measure items that are about an inch, foot and yard? How can I sue a string and rulers to measure to the nearest inch and length of paths that are not straight?	Use string and rulers to measure to the nearest inch the length of paths that are not straight	Length Units Inches Feet Centimeters meters
I-3rd M-3rd **BM 2-9 Lesson 11-4, 11-9**	**2.MD.4.** Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.	How can I measure to compare length?	Measure to compare lengths. Express the length differences in terms of a standard length unit.	Measure Length Differences
I-3rd M-3rd **BM 2-10 Lesson 11-1, 11-2, 11-6, 11-7**	**2.MD.5.** Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.	How can I use addition/subtraction to solve measurement problems?	Use addition to solve measurement problems.	Addition Subtraction Equations Symbol
I-3rd – M3rd **BM 2-4 Lesson 9-7, 9-8 11-12**	**2. MD.9**. Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot where the horizontal scale is marked off in whole number units.	How can I use rulers to measure objects and graph the results using a line plot? How can I organize the lengths of objects in different ways?	Use rulers to measure objects and graph the results	Line plot Horizontal Rulers Measure lengths