Ross School Curriculum Map 2009/2010
Subject to modifications throughout the school year

Content Area: Math	*Grade Level: Second*

Month	Content	Skills/Benchmarks
August/September	**Essential Question** How do number sense and operations (addition/subtraction) build my mathematical thinking? **<u>California Harcourt School Publishers</u>** *Unit 1: Numbers and Operations* Chapter 1-Addition Facts and Strategies Chapter 2-Subtraction Facts and Strategies Chapter 3-Place Value to 100 **Vocabulary:** add, number sentence, count on, sum, addends, doubles, doubles plus one, rule, subtract, take away, compare, count back, difference, fact family, missing addend, ones tens, digits, estimate	**NS 1.1** ✓ Count, read, and write whole numbers to 1,000 and identify the place value for each digit. **NS 1.2** Use words, models, and expanded form (45 = 4 tens + 5) to represent numbers (to 1,000). **NS 6.0** Students use estimation strategies in computation and problem solving that involve numbers that use the ones, tens, hundreds, and thousands place. **NS 2.1** ✓ Understand and use inverse relationships between addition and subtraction (i.e., 8+6=14, 14-6=8) to solve problems and check solutions. **NS 2.2** ✓ Find the sum or difference of two whole numbers up to 3 digits long. **AF 1.0** Students model, represent, and interpret number relationships to create and solve problems involving addition and subtraction. **AF 1.1** ✓ Use the commutative and associative rules to simplify mental calculations and check results. **AF 1.2** Relate problem situations to number sentences involving addition and subtraction.
October	**Essential Question** How do number sense and operations (addition/subtraction) build my mathematical thinking? **<u>California Harcourt School Publishers</u>** *Unit 1: Numbers and Operations* Chapter 3-Place Value to 100 Chapter 4-Number Concepts and Patterns *Unit 2: 2-Digit Addition and Subtraction*	**NS 1.3** ✓ Order and compare whole numbers to 1,000 by using the symbols <, =, >. **NS 2.1** ✓ Understand and use inverse relationships between addition and subtraction (i.e., 8+6=14, 14-6=8) to solve problems and check solutions. **NS 2.2** ✓ Find the sum or difference of two

	Chapter 5-Explore 2-Digit Addition Chapter 6-2-Digit Addition **Vocabulary:** greater than, less than, equal to, greatest, least, even, odd, skip-count, regroup	whole numbers up to 3 digits long. **NS 6.0** Students use estimation strategies in computation and problem solving that involve numbers that use the ones, tens, hundreds, and thousands place. **AF 1.0** Students model, represent, and interpret number relationships to create and solve problems involving addition and subtraction. **AF 1.1** ✓ Use the commutative and associative rules to simplify mental calculations and check results. **AF 1.2** Relate problem situations to number sentences involving addition and subtraction. **SDAP 2.0** ✓ Students demonstrate an understanding of patterns and how patterns grow and describe them in general ways. **SDAP 2.2** Solve problems involving simple number patterns.
November	**Essential Question** How do number sense and operations (addition/subtraction) build my mathematical thinking? **<u>California Harcourt School Publishers</u>** *Unit 2: 2-Digit Addition and Subtraction* Chapter 7-Explore 2-Digit Subtraction Chapter 8-2-Digit Subtraction **Vocabulary:** regroup, difference, subtraction, tens, ones	**NS 1.1** ✓ Count, read, and write whole numbers to 1,000 and identify the place value for each digit. **NS 1.2** Use words, models, and expanded form (45 = 4 tens + 5) to represent numbers (to 1,000). **NS 1.3** ✓ Order and compare whole numbers to 1,000 by using the symbols <, =, >. **NS 2.1** ✓ Understand and use inverse relationships between addition and subtraction (i.e., 8+6=14, 14-6=8) to solve problems and check solutions. **NS 2.2** ✓ Find the sum or difference of two

		whole numbers up to 3 digits long. **NS 6.0** Students use estimation strategies in computation and problem solving that involve numbers that use the ones, tens, hundreds, and thousands place. **AF 1.0** Students model, represent, and interpret number relationships to create and solve problems involving addition and subtraction. **AF 1.1** ✓ Use the commutative and associative rules to simplify mental calculations and check results. **AF 1.2** Relate problem situations to number sentences involving addition and subtraction. **SDAP 2.0** ✓ Students demonstrate an understanding of patterns and how patterns grow and describe them in general ways. **SDAP 2.2** Solve problems involving simple number patterns.
December	**Essential Question** How can I use data, graphs, and money to build my mathematical thinking? **<u>California Harcourt School Publishers</u>** *Unit 3: Data, Graphs, and Money* Chapter 9-Data and Graphs Chapter 10-Money **Vocabulary:** picture graph, key, survey, tally mark, tally chart, bar graph, pictograph, line plot, range, mode, penny, nickel, dime, quarter, half dollar	**NS 5.0** Students model and solve problems by representing, adding, and subtracting amounts of money. **NS 5.1** ✓ Solve problems using combinations of coins and bills. **NS 5.2** ✓ Know and use the decimal notation and the dollar and cent symbols for money. **AF 1.3** Solve addition and subtraction problems by using data from simple charts, picture graphs, and number sentences. **SDAP 1.0** ✓ Students collect numerical data and record, organize, display, and interpret the data on bar graphs and other

		representations. **SDAP 1.3** Identify features of data sets (range and mode). **SDAP 1.4** Ask and answer simple questions related to data representations.
January	**Essential Question** How can I use data, graphs, and money to build my mathematical thinking? **<u>California Harcourt School Publishers</u>** *Unit 3: Data, Graphs, and Money* Chapter 11-Use Money *Unit 4: Geometry and Fractions* Chapter 12-Solid Figures Chapter 13-Plane Figures and Spatial Sense **Vocabulary:** picture graph, key, survey, tally mark, tally chart, bar graph, pictograph, line plot, range, mode, penny, nickel, dime, quarter, half dollar, solid figure, sphere, cone, cube, cylinder, pyramid, rectangular prism, flat surfaces, curved surfaces, face, edge, vertex, vertices	**NS 4.0** Students understand that fractions and decimals may refer to parts of a set and parts of a whole. **NS 4.1** ✓ Recognize, use and compare unit fractions from 1/12 to ½ . **NS 4.2** ✓ Recognize fractions of a whole and parts of a group (i.e., one-fourth of a pie and two-thirds of 15 balls) **NS 4.3** ✓ Know that when all fractional parts are included, such as four-fourths, the result is equal t the whole and to one. **NS 5.0** Students model and solve problems by representing, adding, and subtracting amounts of money. **NS 5.1** ✓ Solve problems using combinations of coins and bills. **NS 5.2** ✓ Know and use the decimal notation and the dollar and cent symbols for money. **AF 1.3** Solve addition and subtraction problems by using data from simple charts, picture graphs, and number sentences. **SDAP 1.0** ✓ Students collect numerical data and record, organize, display, and interpret the data on bar graphs and other representations. **SDAP 1.3** Identify features of data sets (range and mode).

		SDAP 1.4 Ask and answer simple questions related to data representations. **MG 2.0** Students identify and describe the attributes of common figures in the plane and common objects in space. **MG 2.1** Describe and classify plane and solid geometric shapes (e.g., circle, triangle, square, rectangle, sphere, pyramid, cube, rectangular prism) according to the number and shapes of faces, edges, and vertices. **MG 2.2** Put shapes together and take them apart to form other shapes (e.g., two congruent right triangles can be arranged to form a rectangle).
February	**Essential Question** How can I use geometry and fractions to build my mathematical thinking? **<u>California Harcourt School Publishers</u>** *Unit 4: Geometry and Fractions* Chapter 14 – Parts of a Whole Chapter 15 – Parts of a Group *Unit 5: Greater Numbers and 3-Digit Addition and Subtraction* Chapter 16 – Place Value to 1,000 **Vocabulary:** equal parts, halves, thirds, fourths, fraction, whole, hundreds, tens, ones, digit.	**NS1.1**✓ Count, read, and write whole numbers to 1,000 and identify the place value for each digit. **NS1.2** Use words, models and expanded forms (e.g., 45= 4 tens + 5) to represent numbers (to 1000) **NS1.3**✓ Order and compare whole numbers to 1,000 by using symbols <, =, >. **NS4.0** Students understand that fractions and decimals may refer to parts of a set and parts of a whole. **NS4.1**✓ Recognize, name and compare units of fractions from 1/12 to ½. **N.S4.2**✓ Recognize fractions of a whole and parts of a group (e.g., one-fourth of a pie, two-thirds of 15 balls). **NS4.3**✓ Know that when all fractional parts are included, such as four-fourths, the result is equal to the whole and to one.

		NS5.1✓ Solve problems using combinations of coins and bills **NS5.2**✓ Know and use the decimal notation and the dollar cent symbols for money. **NS6.0** Students use estimation strategies in computation and problem solving that involve numbers that use the ones, tens, hundreds, and thousands places.
March	**Essential Question** How can I use fractions, place value, addition and multiplication to build my mathematical thinking? **<u>California Harcourt School Publishers</u>** *Unit 5: Greater Numbers and 3-Digit Addition and Subtraction* Chapter 17 – Compare and Order Greater Numbers Chapter 18 – 3-Digit Addition Chapter 19 – 3-Digit Subtraction *Unit 6: Multiplication, Division, Measurement, and Time* Chapter 20 – Multiplication Concepts and Facts **Vocabulary:** greater than, less than, equal to, dollar sign ($), decimal point (.), dollar, regroup, ones, tens, hundreds, dollar sign, decimal point, equal groups, multiply, multiplication sentence, array, product, multiplication table.	**NS1.3**✓ Order and compare whole numbers to 1,000 by using symbols <, =, >. **NS2.0** Students estimate, calculate, and solve problems involving addition and subtraction of two and three digit numbers **NS2.2**✓ Find the sum or difference of two whole numbers up to three digits long. **NS3.0** Students model and solve simple problems involving multiplication and division **NS3.1** Use repeated addition, arrays, and counting by multiples to do multiplication **NS3.3** Know the multiplication tables of 2s, 5s, and 10s (to "times 10") and commit them to memory. **NS5.0** Students model and solve problems by representing adding, and subtracting amounts of money. **NS5.1**✓ Solve problems using combinations of coins and bills **NS6.0** Students use estimation strategies in computation and problem solving that involve numbers that use the ones, tens,

		hundreds, and thousands places.
April	**Essential Question** How can I use division and measurement to build my mathematical thinking? **<u>California Harcourt School Publishers</u>** *Unit 6: Multiplication, Division, Measurement, and Time* Chapter 21 – Division Concepts Chapter 22 – Length Chapter 23 – Weight, Mass, and Capacity **Vocabulary:** divide, division sentence, remainder, inch (in.), foot (ft.), centimeter (cm.), weight, ounce, pound, mass, gram, kilogram, capacity, cup, pint, quart, gallon, liter.	**NS3.0** Students model and solve simple problems involving multiplication and division. **NS3.2** Use repeated subtraction, equal sharing, and forming equal groups with remainders to do division. **NS6.1** Recognize when an estimate is reasonable in measurements (e.g., closest inch). **MG1.0** Students understand that measurement is accomplished by identifying a unit of measure, iterating (repeating) that unit, and comparing it to the item to be measured. **MG1.1** Measure the length of objects by iterating (repeating) a nonstandard or standard unit. **MG1.2** Use different units to measure the same object and predict whether the measure will be greater or smaller when a different unit is used. **MG1.3✓** Measure the length of an object to the nearest inch and/or centimeter.
May/June	**Essential Questions** How can I use time to build my mathematical thinking? What concepts do I need to review and practice to master 2nd grade math standards? **<u>California Harcourt School Publishers</u>** *Unit 6: Multiplication, Division, Measurement and Time* Chapter 24 – Time Sprial Review (content determined from chapter and End of Year Tests) **Vocabulary:** second, minute, quarter	**MG1.4** Tell time to the nearest quarter hour and know relationships of time (e.g., minutes in an hour, days in a month, weeks in a year). **MR1.5** Determine the duration of intervals of time in hours (e.g., 11:00 A.M. to 4:00 P.M.).

	hour, A.M., P.M., midnight, noon, hour, week, month, year	