

**RIDGECROFT SCHOOL
GRADE 3 MATHEMATICS**

PACING GUIDE

2005-2006	
1st Six Weeks: August 17-September 26 Lessons 1.1-2.2	4th Six Weeks: January 3-February 15 Lessons 6.1-7.8
2nd Six Weeks: September 27-November 3 Lessons 2.3-3.6	5th Six Weeks: February 16-April 4 Lessons 7.9-9.8
3rd Six Weeks: November 6-December 19 Lessons 3.7-5.13	6th Six Weeks: April 5-May 30 Lessons 9.9-11.10

RESOURCE: *Everyday Math* (SRA McGraw-Hill)

AUGUST / SEPTEMBER	PACE	NC SCOS Grade 3
UNIT 1 ROUTINE, REVIEWS, AND ASSESSMENTS Lessons 1.1-1.13 <ul style="list-style-type: none"> • Identify and use number patterns to solve problems • Count by 10s and 100s • Know basic addition facts • Apply place-value concepts in 4-digit numbers • Tell and show times to the nearest minute • Count combinations of bills and coins and write the total in dollars-and-cents notation • Find equivalent names for numbers 	25	1.01 (Numbers to 999), 1.02
UNIT 2 ADDING /SUBTRACTING WHOLE NUMBERS Lessons 2.1-2.3 <ul style="list-style-type: none"> • Know basic addition and subtraction facts • Complete fact and number families • Estimate answers to multidigit addition and subtraction problems • Use basic facts to solve fact extensions 	6	1.01, 1.02
OCTOBER		
UNIT 2 ADDING /SUBTRACTING WHOLE NUMBERS Lessons 2.4-2.10 <ul style="list-style-type: none"> • Estimate answers to multidigit addition and subtraction problems • Add and subtract multidigit numbers • Solve addition and subtraction multidigit number stories 	12	1.01, 1.02, 1.04, 5.01, 5.02, 5.03
UNIT 3 LINEAR MEASURES AND AREAS Lessons 3.1-3.4 <ul style="list-style-type: none"> • Measure line segments to the nearest cm • Find the perimeter of a polygon • Measure line segments to the nearest $\frac{1}{4}$ inch. 	8	2.01, 2.02, 5.01, 5.02, 5.03
NOVEMBER		
UNIT 3 LINEAR MEASURES AND AREAS Lessons 3.5-3.9 <ul style="list-style-type: none"> • Find the perimeter of a polygon • Find the area of a rectangular region divided into square units 	7	2.01, 2.02, 5.01, 5.02, 5.03
UNIT 4 MULTIPLICATION AND DIVISION Lessons 4.1-4.10 <ul style="list-style-type: none"> • Solve number stories involving equal groups by using multiplication • Solve number stories involving equal sharing and equal grouping • Know multiplication facts having 3 or 4 as one factor and 2 through 7 as the other factor • Know multiplication facts having 2,5,or 10 as a factor • Complete multiplication/division fact families • Know multiplication facts having 0 or 1 as a factor 	13	1.01, 1.02, 1.03, 1.04
DECEMBER		
UNIT 5 PLACE VALUE IN WHOLE NUMBERS AND DECIMALS	12	1.01, 1.03,

Lessons 5.1-5.13 <ul style="list-style-type: none"> • Know multiplication facts • Read, write, and compare whole numbers up to 5 digits • Read, write and compare 6- and 7-digit whole numbers • Read and write 3-digits decimals • Compare and order decimals • Identify place value in decimals • Read and write 1- and 2-digit decimals • Identify place value in whole numbers up to 5 digits 		5.01, 5.02, 5.03
JANUARY		
UNIT 6 GEOMETRY Lessons 6.1-6.13 <ul style="list-style-type: none"> • Identify, draw, and name line segments, lines, and rays • Draw parallel and intersecting line segments, lines, and rays • Know multiplication facts from the first set of Fact Triangles • Identify right angles • Draw angles as records of rotations • Identify and name 2-D and 3-D shapes • Identify symmetric figures and draw lines of symmetry 	20	3.01, 3.02
FEBRUARY		
UNIT 7 MULTIPLICATION AND DIVISION Lessons 7.1-7.10 <ul style="list-style-type: none"> • Recognize and know square products • Know multiplication facts from second set of Fact Triangles • Make estimates for sums and products • Understand function and placement of parentheses in number sentences • Solve extended multiplication facts to tens X tens 	16	1.01, 1.02, 1.03
UNIT 8 FRACTIONS Lessons 8.1-8.2 <ul style="list-style-type: none"> • Identify fractional parts of a set and region 	4	1.05, 1.06
MARCH		
UNIT 8 FRACTIONS Lessons 8.3-8.8 <ul style="list-style-type: none"> • Identify fractions on a number line • Find equivalent fractions • Solve fraction number stories • Compare and order fractions • Convert between mixed numbers and fractions 	9	1.05, 1.06
UNIT 9 MULTIPLICATION AND DIVISION Lessons 9.1-9.7 <ul style="list-style-type: none"> • Solve number stories involving equal shares and equal groups • Solve extended multiplication facts to hundreds X hundreds • Use partial-products algorithm to multiply multidigit numbers by 1- or 2-digit numbers • Find factors of a number 	13	1.03, 1.06
APRIL		
UNIT 9 MULTIPLICATION AND DIVISION Lessons 9.8-9.14 <ul style="list-style-type: none"> • Interpret remainders in division problems • Solve number stories involving equal shares and equal groups • Use partial-products algorithm to multiply multidigit numbers by 1- or 2-digit numbers 	8	1.03, 1.06, 5.01, 5.02, 5.03
UNIT 10 MEASUREMENT AND DATA Lessons 10.1-10.6 <ul style="list-style-type: none"> • Measure in centimeters and inches • Know units of measure • Find the volume of rectangular prisms • Know multiplication facts 	6	1.03, 2.01, 2.02, 3.01, 3.02, 5.04
MAY/JUNE		

UNIT 10 MEASUREMENT AND DATA Lessons 10.6-10.10 <ul style="list-style-type: none"> • Make a bar graph • Make a frequency table • Find the median and mean of a data set • Know multiplication facts 	12	1.03, 1.06
UNIT 11 PROBABILITY Lessons 11.1-11.10 <ul style="list-style-type: none"> • Understand / use language of probability • Use fractions to record probability of events • Use random draws to predict outcomes • Collect / organize data for use in predicting outcomes • Understand area model of probability and solve simple spinner problems 	11	4.01, 4.02, 4.03
TOTAL	180	

8/1/06

NC STANDARD COURSE OF STUDY

Everyday Math is an integrated math curriculum that will be used in grades K-6 at Ridgcroft School. It is not entirely aligned by grade with the NC SCOS. However, over the 6-year time period, all NC SCOS objectives will be included in instruction. Listed below are objectives from a 3-year grade span.

GRADE 2	GRADE 3	GRADE 4
MAJOR CONCEPTS/SKILLS: <ul style="list-style-type: none"> • Number sense 0-999 • Place value • Addition and subtraction of multi-digit numbers • Length, time • Symmetry and congruence • Pictographs • Probability experiments • Numbers sentences • Students will solve relevant and authentic problems using appropriate technology and apply these concepts as well as those developed in earlier year. CONCEPTS/SKILLS TO MAINTAIN <ul style="list-style-type: none"> • Patterns • Sort and classify • Line plots, tallies 	MAJOR CONCEPTS/SKILLS: <ul style="list-style-type: none"> • Number sense 0-9,999 • Multiplication and division • Non-negative rational numbers • Capacity and mass • Coordinate grids • Circle graphs • Permutations and combinations • Growing patterns • Variables • Students will solve relevant and authentic problems using appropriate technology and apply these concepts as well as those developed in earlier years. CONCEPTS/SKILLS TO MAINTAIN <ul style="list-style-type: none"> • Addition and subtraction of multi-digit numbers • Length and time • Symmetry and congruence • Line plots, tallies, pictographs • Venn diagram 	MAJOR CONCEPTS/SKILLS: <ul style="list-style-type: none"> • Number sense 0.01-99,999 • Multiplication and division of multi-digit numbers • Perimeter and area • Transformations • Line graphs • Median, mode, and range • Variables in number sentences • Proportional reasoning • Students will solve relevant and authentic problems using appropriate technology and apply these concepts as well as those developed in earlier years. CONCEPTS/SKILLS TO MAINTAIN <ul style="list-style-type: none"> • Whole number computation • Non-negative rational numbers • Length, time, capacity, and mass • Symmetry and congruence • Coordinate grids • Circle graphs • Permutations and combinations
GOAL 1: The learner will read, write, model and compute with whole numbers through 999. 1.01 Develop number sense for whole numbers through 999. <ul style="list-style-type: none"> • Connect model, number word, and number using a variety of representations. • Read and write numbers. • Compare and order. • Rename • Estimate 	GOAL 1: The learner will understand and compute with whole numbers through 9,999. 1.01 Develop number sense for whole numbers through 9,999. <ul style="list-style-type: none"> (a) Connect model, number word, and number using a variety of representations. (b) Build understanding of place value (ones through thousands). (c) Compare and order. 1.02 Develop FLUENCY with multi-digit addition and subtraction	GOAL 1: The learner will read, write, model, and compute with non-negative rational numbers. 1.01 Develop number sense for rational numbers 0.01 through 99,999. <ul style="list-style-type: none"> (a) Connect model, number word, and number using a variety of representations. (b) Build understanding of place value (hundredths through ten thousands). (c) Compare and order rational numbers. (d) Make estimates of rational numbers in appropriate situations.

<ul style="list-style-type: none"> • Use a variety of models to build understanding of place values (ones, tens, hundreds). <p>1.02 Use area or region models and set models of fractions to explore part-whole relationships in context.</p> <ul style="list-style-type: none"> • Represent fractions (halves, thirds, fourths) concretely and symbolically. • Compare fractions (halves, thirds, fourths) using models. • Make different representations of the same fraction. • Combine fractions to describe parts of a whole. <p>1.03 Create, model, and solve problems that involve addition, subtraction, equal grouping, and division into halves, thirds, and fourths (record in fraction form).</p> <p>1.04 Develop FLUENCY with multi-digit addition and subtraction through 999 using multiple strategies.</p> <p>(a) Strategies for adding and subtracting numbers.</p> <p>(b) Estimation of sums and differences in appropriate situations.</p> <p>(c) Relationships between operations.</p> <p>1.05 Create and solve problems using strategies such as modeling, composing and decomposing quantities, using doubles, and making tens and hundreds.</p> <p>1.06 Define and recognize odd and even numbers.</p>	<p>through 9,999 using:</p> <p>(a) Strategies for adding and subtracting numbers.</p> <p>(b) Estimation of sums and differences in appropriate situations.</p> <p>(c) Relationships between operations.</p> <p>1.03 Develop FLUENCY with multiplication from 1x1 to 12x12 and division up to two-digit by one-digit numbers using:</p> <p>(a) Strategies for multiplying and dividing numbers</p> <p>(b) Estimation of products and quotients in appropriate situations</p> <p>(c) Relationships between operations.</p> <p>1.04 Use basic properties (identity, commutative, associative, order of operations) for addition, subtraction, multiplication, and division.</p> <p>1.05 Use area or region models and set models of fractions to explore part-whole relationships.</p> <p>(a) Represent fractions concretely and symbolically (halves, fourths, thirds, sixths, eights).</p> <p>(b) Compare and order fractions (halves, fourths, thirds, sixths, eighths) using models and benchmark numbers (zero, one-half, one); describe comparisons.</p> <p>(c) Model and describe common equivalents, especially relationships among halves, fourths, and eighths, and thirds and sixths.</p> <p>(d) Understand that the fractional relationships that occur between zero and one also occur between every two consecutive whole numbers.</p> <p>(e) Understand and use mixed numbers and their equivalent fraction forms.</p> <p>1.06 Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil.</p>	<p>1.02 Develop FLUENCY with multiplication and division:</p> <p>(a) Two-digit by two-digit multiplication (larger numbers with calculator).</p> <p>(b) Up to three-digit by two-digit division (larger numbers with calculator).</p> <p>(d) Estimation of products and quotients in appropriate situations.</p> <p>(e) Relationships between operations.</p> <p>1.03 Solve problems using models, diagrams, and reasoning about fractions and relationships among fractions involving halves, fourths, eights, thirds, sixths, twelfths, fifths, tenths, hundredths, and mixed numbers.</p> <p>1.04 Develop FLUENCY with addition and subtraction of non-negative rational numbers with like denominators, including decimal fractions through hundredths.</p> <p>(a) Develop and analyze strategies for adding and subtracting numbers</p> <p>(b) Estimate sums and differences.</p> <p>(c) Judge the reasonableness of solutions.</p> <p>1.05 Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil.</p>
<p>GOAL 2: The learner will recognize and use standard units of metric and customary measurement.</p> <p>2.01 Estimate and measure using appropriate units.</p> <p>(a) Length (meters, centimeters, feet, inches, yards).</p> <p>(b) Temperature (Fahrenheit)</p> <p>2.02 Tell time at the five-minute intervals.</p>	<p>GOAL 2: The learner will recognize and use standard units of metric and customary measurement.</p> <p>2.01. Solve problems using measurement concepts and procedures involving:</p> <p>(a) Elapsed time</p> <p>(b) Equivalent measure within the same measurement systems</p> <p>2.02 Estimate and measure using</p>	<p>GOAL 2: The learner will understand and use perimeter and area</p> <p>2.01 Develop strategies to determine the area of rectangles and the perimeter of plane figures.</p> <p>2.02 Solve problems involving perimeter of plane figures and areas of rectangles.</p>

	<p>appropriate units.</p> <p>(a) Capacity (cups, pint, quarts, gallons, liters)</p> <p>(b) Length (miles, kilometers)</p> <p>(c) Mass (ounces, pounds, grams, kilograms)</p> <p>(d) Temperature (Fahrenheit, Celsius)</p>	
<p>GOAL 3: The learner will perform simple transformations.</p> <p>3.01 Combine simple figures to create a given shape.</p> <p>3.02 Describe the change in attributes as two- and three-dimensional figures are cut and rearranged.</p> <p>3.03 Identify and make:</p> <p>(a) Symmetric figures.</p> <p>(b) Congruent figures.</p>	<p>GOAL 3: The learner will recognize and use basic geometric properties of two- and three-dimensional figures.</p> <p>3.01 Use appropriate vocabulary to compare, describe and classify two- and three-dimensional figures.</p> <p>3.02 Use a rectangular coordinate system to solve problems.</p> <p>(a) Graph and identify points with whole number and/or letter coordinates.</p> <p>(b) Describe the path between given points on the plane.</p>	<p>GOAL 3: The learner will recognize and use geometric properties and relationships.</p> <p>3.01 Use the coordinate systems to describe the location and relative position of points and draw figures in the first quadrant.</p> <p>3.02 Describe the relative position of lines using concepts of parallelism and perpendicularity.</p> <p>3.03 Identify, predict, and describe the results of transformations of plane figures.</p> <p>(a) Reflections</p> <p>(b) Translations</p> <p>(c) Rotations.</p>
<p>GOAL 4: The learner will understand and use data and simple probability concepts.</p> <p>4.01 Collect, organize, describe and display data using Venn diagrams (three sets) and pictographs where symbols represent multiple units (2's, 5's, 10's).</p> <p>4.02 Conduct simple probability experiments; describe the results and make predictions.</p>	<p>GOAL 4: The learner will understand and use data and simple probability concepts.</p> <p>4.01 Collect, organize, analyze, and display data (including circle graphs and tables) to solve problems.</p> <p>4.02 Determine the number of permutations and combinations of up to three items.</p> <p>4.03 Solve probability problems using permutations and combinations.</p>	<p>GOAL 4: The learner will understand and use graphs, probability, and data analysis.</p> <p>4.01 Collect, organize, analyze, and display data (including line graphs and bar graphs) to solve problems.</p> <p>4.02 Describe the distribution of data using median, range, and mode.</p> <p>4.03 Solve problems by comparing two sets of related data.</p> <p>4.04 Design experiments and list all possible outcomes and probabilities for an event.</p>
<p>GOAL 5: The learner will recognize and represent patterns and simple mathematical relationships.</p> <p>5.01 Identify, describe, translate, and extend repeating and growing patterns.</p> <p>5.02 Write addition and subtraction number sentences to represent a problem; use symbols to represent unknown quantities.</p>	<p>GOAL 5: The learner will recognize, determine, and represent patterns and simple mathematical relationships.</p> <p>5.01 Describe and extend numeric and geometric patterns.</p> <p>5.02 Extend and find missing terms of repeating and growing patterns.</p> <p>5.03 Use symbols to represent unknown quantities in numbers sentences.</p> <p>5.04 Find the value of the unknown in a number sentence.</p>	<p>GOAL 5: The learner will demonstrate an understanding of mathematical relationships.</p> <p>5.01 Identify, describe, and generalize relationships in which:</p> <p>(a) Quantities change proportionally</p> <p>(b) Change in one quantity relates to change in a second quantity.</p> <p>5.02 Translate among symbolic, numeric, verbal, and pictorial representations of number relationships.</p> <p>5.03 Verify mathematical relationships using;</p> <p>(a) Models, words, and numbers.</p> <p>(b) Order of operations and the identity, commutative, associative, and distributive properties.</p>