

**RIDGECROFT SCHOOL  
GRADE 6 MATHEMATICS**

**PACING GUIDE**

<b>FIRST GRADING PERIOD</b>	<b>PACE</b>	<b>NC SCOS Grade 6</b>	<b>RESOURCE: <i>Passport to Mathematics, Book 1, Larson, Boswell, Kanold, Stiff, Edition 2002, McDougall Littell</i> ISBN: 0-618-18598-4</b>
PROBLEM SOLVING	15		TEXTBOOK: Chapter 1
PLACE VALUE SYSTEM	15	Goal 1	TEXTBOOK: Chapter 2
<b>SECOND GRADING PERIOD</b>			
DECIMALS AND PERCENTS	15	Goal 1	TEXTBOOK: Chapter 3
APPLICATIONS OF DECIMALS AND PERCENTS	15	Goal 1,4	TEXTBOOK: Chapter 4
<b>THIRD GRADING PERIOD</b>			
STATISTICS AND GRAPHS	15	Goal 1,3,5	TEXTBOOK: Chapter 5
FRACTIONS, RATIOS, AND PROPORTIONS	15	Goal 1,3,5	TEXTBOOK: Chapter 6
<b>FOURTH GRADING PERIOD</b>			
ADDING AND SUBTRACTING FRACTIONS	15	Goal 4	TEXTBOOK: Chapter 7
MULTIPLYING AND DIVIDING FRACTIONS	15	Goal 4	TEXTBOOK: Chapter 8
<b>FIFTH GRADING PERIOD</b>			
GEOMETRY AND PATTERNS	15	Goal 2	TEXTBOOK: Chapter 9
GEOMETRY AND MEASUREMENT	15	Goal 2, 3	TEXTBOOK: Chapter 10
<b>SIXTH GRADING PERIOD</b>			
INTEGERS AND COORDINATE PLANE	15	Goal 3	TEXTBOOK: Chapter 11
ALGEBRA: EQUATIONS AND PROBABILITY	15	Goal 5	TEXTBOOK: Chapter 12

8/09

**NC STANDARD COURSE OF STUDY**

<b>GRADE 6 MATHEMATICS</b>	
<p><b>MAJOR CONCEPTS/SKILLS:</b></p> <ul style="list-style-type: none"> <li>• Negative rational numbers</li> <li>• Percent</li> <li>• Transformations in the coordinate plane</li> <li>• Probability</li> <li>• Equations and inequalities</li> <li>• Multiplication and division of non-negative rational numbers</li> <li>• Students will solve relevant and authentic problems using appropriate technology and apply these concepts as well as those developed in earlier years.</li> </ul>	<p><b>CONCEPTS/SKILLS TO MAINTAIN</b></p> <ul style="list-style-type: none"> <li>• Addition and subtraction of non-negative rational numbers</li> <li>• Numbers properties</li> <li>• Perimeter and area</li> <li>• Median, mode, and range</li> <li>• Bar graphs and leaf plots</li> </ul>
<p><b>GOAL 1: The learner will understand and compute with rational numbers.</b></p> <p>1.01 Develop number sense for negative rational numbers.</p> <p>(a) Connect the model, number word, and number using a variety of representations, including the number line.</p> <p>(b) Compare and order.</p> <p>(c) Make estimates in appropriate situations.</p> <p>1.02 Develop the meaning for percents.</p> <p>(a) Connect the model, number word and number using a variety of representations.</p> <p>(b) Make estimates in appropriate situations.</p> <p>1.03 Compare and order rational numbers.</p> <p>1.04 Develop <b>FLUENCY</b> in addition, subtraction, multiplication, and division of non-negative rational numbers.</p> <p>(a) Analyze computational strategies.</p> <p>(b) Describe the effect of operations on size.</p> <p>(c) Estimate the results of computations.</p> <p>(d) Judge the reasonableness of solutions.</p>	

<p>1.05 Develop <b>FLUENCY</b> in the use of factors, multiples, exponential notation, and prime factorization.</p> <p>1.06 Use exponential, scientific, and calculator notation to write very large and very small numbers.</p> <p>1.07 Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil.</p>
<p><b>GOAL 2: The learner will select and use appropriate tools to measure two- and three-dimensional figures.</b></p> <p>2.01 Estimate and measure length, perimeter, area, angles, weight, and mass of two- and three-dimensional figures, using appropriate tools.</p> <p>2.02 Solve problems involving perimeter/circumference and area of plane figures.</p>
<p><b>GOAL 3: The learner will understand and use properties and relationships of geometric figures in the coordinate plane.</b></p> <p>3.01 Identify and describe the intersection of figures in a plane.</p> <p>3.02 Identify the radius, diameter, chord, center, and circumference of a circle; determine the relationships among them.</p> <p>3.03 Transform figures in the coordinate plane and describe the transformation.</p> <p>3.04 Solve problems involving geometric figures in the coordinate plane.</p>
<p><b>GOAL 4: The learner will understand and determine probabilities.</b></p> <p>4.01 Develop <b>FLUENCY</b> with counting strategies to determine the sample space for an event. Include lists, tree diagrams, frequency distribution tables, permutations, combinations, and the Fundamental Counting Principle.</p> <p>4.02 Use a sample space to determine the probability of an event.</p> <p>4.03 Conduct experiments involving simple and compound events.</p> <p>4.04 Determine and compare experimental and theoretical probabilities for simple and compound events.</p> <p>4.05 Determine and compare experimental and theoretical probabilities for independent and dependent events.</p> <p>4.06 Design and conduct experiments or surveys to solve problems; report and analyze results.</p>
<p><b>GOAL 5: The learner will demonstrate an understanding of simple algebraic expressions.</b></p> <p>5.01 Simplify algebraic expressions and verify the results using the basic properties of rational numbers.</p> <p>(a) Identity</p> <p>(b) Commutative</p> <p>(c) Associative</p> <p>(d) Distributive</p> <p>(e) Order of operations</p> <p>5.02 Use and evaluate algebraic expressions</p> <p>5.03 Solve simple (one- and two-step) equations or inequalities.</p> <p>5.04 Use graphs, tables, and symbols to model and solve problems involving rates of change and ratios.</p>