Math 5

Text:	Georgia Mathematics 5 by Scott Foresman/Addison Wesley (2008)

Supplemental Materials:	Reteaching and Enrichment Workbooks

Course Description:	Fifth grade math correlates to the Georgia Performance Standards. Students will further develop their understanding of the concept of whole numbers. They will also understand the meanings of multiplication and division of decimals and use decimals and common fractions in computation as well as in problem-solving situations. Students will compute the area of geometric plan figures. They will also understand the concept of volume and compute the volume of simple geometric solids and measure capacity. Students will convert from one unit to another within one system of measurement. Students will represent and investigate mathematical expressions algebraically by using variables. They will gather, organize, and display data and will interpret graphs. Students will apply mathematical concepts and skills in the context of authentic problems and will understand concepts rather than merely following a sequence of procedures. Students will use the process standards as a way of acquiring and using content knowledge.

Methods of Evaluation:	Students will be evaluated through tests, quizzes, daily practice sets, homework problem sets, and/or any other form of evaluation instrument the instructor finds applicable to the course.

Pace of Instruction:	First Semester: Place Value, Adding, and Subtracting Multiplying Whole Numbers and Decimals Two-Digit Division Dividing with two-digit divisor Data, Graphs, and Probability Second Semester: Fractions Fraction/Decimal Relationship Fraction Operations Measurement Geometry Algebra

Course Objectives:	**Place Value, Adding, and Subtracting** 1. Identify and explain place value 2. Compare and order decimals 3. Understand place value patterns 4. Add and subtract whole numbers 5. Add and subtract decimals **Multiplying Whole Numbers and Decimals** 1. Compute numbers using multiplication patterns 2. Multiply numbers (up to three numbers) using the distributive property 3. Multiply whole numbers 4. Make an organized list 5. Recognize decimal patterns 6. Multiply decimals and whole numbers 7. Multiply decimals 8. Use variables to make algebraic expressions **Two-Digit Division** 1. Recognize division patterns 2. Estimate quotients using rounding 3. Identify patterns and fills in missing numbers 4. Divide three digit whole numbers by one-digit divisors. 5. Divide with zeroes in the quotients. 6. Divide four digit whole numbers by one-digit divisors. 7. Divide money amounts by one-digit divisors. 8. Use divisibility rules. 9. Identify prime or composite numbers. 10. Determine the impact of remainders in word problems. 11. Evaluate three or more numbers and two or more operations. 12. Identify ordered pairs for plotted points. 13. Create a table of values. **Dividing with two digit divisor** 1. Divide using dividend and divisors of a multiple of 10. 2. Estimate quotients with whole numbers, decimals, and money. 3. Divide three-digit whole numbers by two-digit divisors. 4. Divide four-digit whole numbers by two-digit divisors. 5. Choose appropriate computation method (pen and paper, mental math, calculator) 6. Solve multi-step word problems. 7. Divide decimal numbers by 10, 100, and 1,000.

	8. Divide money by two-digit divisors. 9. Divide two and three digit numbers by two and three digit decimals. **Data, Graphs and Probability** 1. Make double bar graphs from data. 2. Collect data from a survey. 3. Create line graphs from data; read and interpret line graphs. 4. Create and interpret stem and leaf plots. 5. Find mean, median, and mode of a set of data. 6. Create circle graphs from data and interpret circle graphs. 7. Predict outcomes based on probability. 8. Creates a tree diagram and identify all possible outcomes. 9. Use fractions to represent probability of events. **Fractions** 1. Identify the meaning of fractions 2. Understand the relationship between fractions and division 3. Apply the relationship between fractions and decimals 4. Express fractions greater than one as mixed numbers or improper fractions. 5. Identify fractions and mixed numbers on a number line. 6. Decide whether there is too much or not enough information to solve a problem. 7. Write equivalent fractions. 8. Identify common factors. 9. Identify fractions in simplest form and puts fractions in simplest form. 10. Compare two fractions to determine which is greater or less. 11. Compare and orders fractions and mixed numbers. 12. Convert decimals to fractions and fractions to decimals. 13. Use logically reasoning to make conclusions in word problems. 14. Add and subtract fractions with like dominators. 15. Find the least common denominator for fractions. 16. Add and subtracts fractions with unlike dominators. 17. Add and subtracts mixed numbers with and without renaming. 18. Estimate sum and differences of mixed numbers. 19. Use compatible numbers. 20. Multiplies mixed numbers. 21. Divides fractions. **Measurement** 1. Change one customary measurement of length to another.

	2. Measure to the nearest inch, quarter-inch and eighth-inch. 3. Choose appropriate metric unit of length. 4. Measure lengths to the nearest centimeter and meter. 5. Convert metric units using decimals. 6. Find the perimeter of a polygon. 7. Find the circumference of a circle. 8. Find the area of a rectangular or square, parallelogram, and triangle. 9. Draw pictures to represent information from word problems. 10. Change from one unit of time to another. 11. Can find elapsed time, starting time, or ending time. 12. Read temperatures in Celsius and Fahrenheit. 13. Identify the number of faces, vertices and edges of a polyhedron. 14. Find the volume of rectangular prisms. 15. Change/convert customary units of capacity. 16. Convert metric units of capacity. **Geometry** 1. Define important geometric terms. 2. Draw and classify angles. 3. Identify relationships between the parts of a circle such as diameter, radius, etc. 4. Identify and classify polygons, triangles, and quadrilaterals. 5. Identify congruent and symmetrical figures. 6. Determine whether a pair of angles is related (pair, slide, or flip). **Algebra** 1. Identify and solve equations; identify variables and the role of variables in equations. 2. Solve equations using addition and subtraction. 3. Solve equations using multiplication and division. 4. Write equations for word problems. 5. Understand integers. 6. Add and subtract integers. 7. Identify and graph coordinates on a plane. 8. Create an x and y chart for equations. 9. Graph x and y coordinates.