RIDGECROFT SCHOOL
GRADE 7 MATHEMATICS

PACING GUIDE

TOPICS/CONCEPTS	TIME	CURRICULUM OBJECTIVES 1.03 throughout	RESOURCE(S): Passport to Mathematics (McDougal Littell)
FIRST GRADING PERIOD	**30 Days**		
PROBLEM SOLVING	10	1.03, 4.01, 4.02, 4.03, 4.04, 4.05, 5.01, 5.04 FLUENCY: • Formulas MAJOR CONCEPT: • Solving authentic problems using appropriate technology	**TEXTBOOK:** Chapter 1
NUMBER RELATIONSHIPS AND FRACTIONS • Order of Operations	10	4.01, 5.01 MAJOR CONCEPT: • Computation with rational numbers MAINTAIN: • Number properties	**TEXTBOOK:** Chapter 2
FRACTIONS AND THEIR OPERATIONS	10	1.02, 1.03 FLUENCY: • Operations with rational numbers MAJOR CONCEPT: • Computation with rational numbers	**TEXTBOOK:** Chapter 3
SECOND GRADING PERIOD	**30 Days**		
FRACTIONS AND THEIR OPERATIONS	5	1.02, 1.03 FLUENCY: • Operations with rational numbers MAJOR CONCEPT: • Computation with rational numbers	**TEXTBOOK:** Chapter 3
ALGEBRA AND INTEGERS • Patterns, table, and expressions • Scatter plots and the coordinate plane • Solving equations	15	1.02, 1.03, 5.01	**TEXTBOOK:** Chapter 4
DATA ANALYSIS AND STATISTICS • Central Tendency • Histograms, box and whiskers • Outliers • Misleading graphs	10	4.01, 4.02, 4.03, 4.04, 4.05 MAJOR CONCEPTS: • Box plots and histograms • Central tendency	**TEXTBOOK:** Chapter 5
THIRD GRADING PERIOD	**30 Days**		
DATA ANALYSIS AND STATISTICS • Central Tendency • Histograms, box and whiskers • Outliers • Misleading graphs	5	4.01, 4.02, 4.03, 4.04, 4.05 MAJOR CONCEPTS: • Box plots and histograms • Central tendency	**TEXTBOOK:** Chapter 5
RATIOS AND PROPORTIONS • Rates • Congruent and similar polygons	20	1.01, 2.01, 3.02, 3.03, 5.04 FLUENCY: • Formulas	**TEXTBOOK:** Chapter 6

• Scale drawings		MAJOR CONCEPT: • Ratio and proportion	
REVIEW AND ASSESSMENT	5		
FOURTH GRADING PERIOD	**30 Days**		
PERCENTS AND DECIMALS • Circle graphs • Simple interest	15	1.01, 5.04 FLUENCY: • Formulas MAINTAIN: • Percent	**TEXTBOOK:** Chapter 7
GEOMETRY IN THE PLANE • Translations • Area and Circumference • Square roots • Pythagorean Theorem	15	2.02, 3.01, 5.04 FLUENCY: • Formulas MAINTAIN: • Transformations in the coordinate plane	**TEXTBOOK:** Chapter 8 **SUPPLEMENT: 3.01**
FIFTH GRADING PERIOD	**30 Days**		
GEOMETRY IN SPACE • Polyhedrons • Surface area and volume	15	2.02, 5.04 FLUENCY: • Formulas MAJOR CONCEPT: • Volume and surface area	**TEXTBOOK:** Chapter 9
ALGEBRA: USING INTEGERS • Absolute value • Coordinate plane • Scientific notation	15	5.01, 5.02	**TEXTBOOK:** Chapter 10
SIXTH GRADING PERIOD	**30 Days**		
PROBABILITY AND DISCRETE MATHEMATICS • Applications of fractions	10	1.02, 4.01, 5.01 FLUENCY: • Operations with rational numbers MAINTAIN: • Probability	**TEXTBOOK:** Chapter 11
ALGEBRA: EQUATIONS AND FUNCTIONS • Inverse operations	15	5.01, 5.02, 5.03, 5.04	**TEXTBOOK:** Chapter 12
REVIEW AND ASSESSMENT	5		

8/1/06

NC STANDARD COURSE OF STUDY

MAJOR CONCEPTS/SKILLS	**CONCEPTS/SKILLS TO MAINTAIN**
• Computation with rational numbers • Ratio and proportion • Factors and multiples • Volume and surface area • Measure of central tendency • Box plots and histograms • Students will solve relevant and authentic problems using appropriate technology and apply these concepts as well as those developed in earlier year.	• Number properties • Percent • Transformations in the coordinate plane • Probability

GOAL 1: THE LEARNER WILL UNDERSTAND AND COMPUTE WITH RATIONAL NUMBERS.
1.01 Develop and use ratios, proportions, and percents to solve problems. 1.02 Develop FLUENCY in addition, subtraction, multiplication, and division of rational numbers. (a) Analyze computational strategies. (b) Describe the effect of operations on size. (c) Estimate the results of computations. (d) Judge the reasonableness of solutions. 1.03 Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, paper and pencil.
GOAL 2: THE LEARNER WILL UNDERSTAND AND USE MEASUREMENT INVOLVING TWO- AND THREE-DIMENSIONAL FIGURES.
2.01 Draw objects to scale and use scale drawings to solve problems. 2.02 Solve problems involving volume and surface area of cylinders, prisms, and composite shapes.
GOAL 3: THE LEARNER WILL UNDERSTAND AND USE PROPERTIES AND RELATIONSHIPS IN GEOMETRY.
3.01 Using three-dimensional figures: (a) Identify, describe, and draw views (top, side, front, corner) (b) Build from various views. (c) Describe cross-sectional views. 3.02 Identify, define, and describe similar and congruent polygons with respect to angle measure, length of sides and proportionality of sides. 3.03 Use scaling and proportional reasoning to solve problems related to similar and congruent polygons.
GOAL 4: THE LEARNER WILL UNDERSTAND AND USE GRAPHS AND DATA ANALYSIS.
4.01 Collect, organize, and display data (including box plots and histograms) to solve problems. 4.02 Calculate, use and interpret the mean, median, mode, range, frequency distribution, and interquartile range for a set of data. 4.03 Describe how the mean, median, mode, range, frequency distribution and interquartile range of a set of data affect its graph. 4.04 Identify outliers and determine their effect on the mean, median, mode and range of a set of data. 4.05 Solve problems involving two or more sets of data using appropriate statistical measures.
GOAL 5: THE LEARNER WILL DEMONSTRATE AN UNDERSTANDING OF LINEAR RELATIONS AND FUNDAMENTAL ALGEBRAIC CONCEPTS.
5.01 Identify, analyze, and create linear relations, sequences, and functions using symbols, graphs, tables, diagrams, and written descriptions. 5.02 Translate among different representations of algebraic expressions, equations, and inequalities. 5.03 Use and evaluate algebraic expressions, linear equations or inequalities to solve problems. 5.04 Develop FLUENCY in the use of formulas to solve problems.