

2003 North Carolina Standard Course of Study, Grade 6,
Correlated to *Glencoe Mathematics: Applications and Concepts*, Course 1

Competency Goals and Objectives		Student Edition Lesson
Competency Goal 1: The learner will understand and compute with rational numbers.		
1.01	Develop number sense for negative rational numbers. a) Connect the model, number word, and number using a variety of representations including the number line. b) Compare and order. c) Make estimates in appropriate situations.	8-1, 8-2a, 8-2, 8-3, 8-4, 8-5, 8-6
1.02	Develop meaning for percents. a) Connect the model, number word, and number using a variety of representations. b) Make estimates in appropriate situations.	4-6b, 10-4, 10-5, 10-6, 10-7a, 10-7, 10-8a, 10-8, 14-3b
1.03	Compare and order rational numbers.	3-2, 5-5
1.04	Develop fluency in addition, subtraction, multiplication, and division of non-negative 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.	1-1, 1-7a, 2-2a, 3-4, 3-5, 3-5b, 4-1a, 4-1, 4-2a, 4-2, 4-3, 4-4a, 4-4, 4-4b, 5-4a, 6-2, 6-2b, 6-3, 6-5, 6-6, 7-1, 7-2a, 7-2, 7-3, 7-4a, 7-4, 7-5, 7-6a, 8-5a, 9-5b, 10-8a, 10-8, 11-5a, 12-4b, 13-4a
1.05	Develop fluency in the use of factors, multiples, exponential notation, and prime factorization.	1-2, 1-3, 1-4, 5-1, 5-4, 6-4a
1.06	Use exponential, scientific, and calculator notation to write very large and very small numbers.	1-4, 3-1a, 3-1, 3-2, 3-3, 4-1, 5-5, 5-6, 5-7, 6-1a, 6-1
1.07	Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil.	1-1, 1-7a, 2-2a, 3-5b, 4-4b, 5-4a, 6-2b, 7-1, 7-6a, 8-5a, 9-5b, 10-8a, 10-8, 11-5a, 12-4b, 13-4a, 14-5a
Competency Goal 2: The learner will select and use appropriate tools to measure two- and three-dimensional figures.		
2.01	Estimate and measure length, perimeter, area, angles, weight, and mass of two- and three-dimensional figures using appropriate tools.	1-8, 4-5, 4-6, 12-1a, 12-1, 12-1b, 12-2, 12-3a, 12-3, 12-3b, 12-4, 12-5, 12-6, 13-1, 13-2, 13-3a, 13-3, 14-1, 14-2a, 14-2, 14-2b, 14-3, 14-5, 14-6
2.02	Solve problems involving perimeter/circumference and area of plane figures.	1-8, 4-5, 4-6, 12-1a, 12-1b, 14-1, 14-2a, 14-2, 14-2b, 14-3, 14-6
Competency Goal 3: The learner will understand and use properties and relationships of geometric figures in the coordinate plane.		
3.01	Identify and describe the intersection of figures in a plane.	8-6, 13-1, 14-1
3.02	Identify the radius, diameter, chord, center, and circumference of a circle; determine the relationships among them.	4-6
3.03	Transform figures in the coordinate plane and describe the transformations.	13-5b
3.04	Solve problems involving geometric figures in the coordinate plane.	13-5b

Competency Goal 4: The learner will understand and determine probabilities.		
4.01	Develop fluency 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.	2-1, 11-1a, 11-1, 11-1b, 11-2, 11-3, 11-4, 11-5a, 11-5
4.02	Use a sample space to determine the probability of an event.	11-1a, 11-1, 11-1b, 11-2, 11-3, 11-4, 11-5
4.03	Conduct experiments involving simple and compound events.	11-1a, 11-1b, 11-3, 11-4, 11-5
4.04	Determine and compare experimental and theoretical probabilities for simple and compound events.	11-1a, 11-1b, 11-4
4.05	Determine and compare experimental and theoretical probabilities for independent and dependent events.	11-1b, 11-5
4.06	Design and conduct experiments or surveys to solve problems; report and analyze results.	2-1, 2-2a, 2-2, 2-2b, 2-3, 2-4, 2-5, 2-6, 2-6b, 2-7, 2-7b, 2-8, 11-1a
Competency Goal 5: The learner will demonstrate an understanding of simple algebraic expressions.		
5.01	Simplify algebraic expressions and verify the results using the basic properties of rational numbers. a) Identity. b) Commutative. c) Associative. d) Distributive. e) Order of operations.	1-5, 1-6, 9-1a, 9-1
5.02	Use and evaluate algebraic expressions.	1-6, 1-8, 3-5, 4-1, 4-2, 4-6, 6-4, 6-5, 7-2, 7-3, 7-4, 7-5, 14-1, 14-2, 14-3, 14-5, 14-6
5.03	Solve simple one- and two-step equations or inequalities.	1-7, 9-2a, 9-2, 9-3a, 9-3, 9-4, 9-4b, 9-5, 9-5b
5.04	Use graphs, tables, and symbols to model and solve problems involving rates of change and ratios.	9-6, 9-7, 10-2, 10-2b, 10-3