

## Northpoint Horizons

### *Math Elevations™ (Comprehensive Intervention System)* Correlated to Grade 6 of The North Carolina Mathematics Standard Course of Study

This document provides a sampling of the extensive math directives offered throughout the *Math Elevations* program that meet **The North Carolina Mathematics Standard Course of Study.**

#### Grade 6

Math Content Standard	Math Elevations Level F (Grade 6) Teacher's Guide Examples/Lessons
<b>COMPETENCY GOAL 1: The learner will understand and compute with rational numbers.</b>	
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.	Unit 1 – Lesson 4: <i>Introduction to Integers</i> pp. 24-25
b) Compare and order.	Unit 1 – Lesson 4: <i>Introduction to Integers</i> pp. 24-25
1.02 Develop meaning for percents.	
a) Connect the model, number word, and number using a variety of representations.	Unit 3 – Lesson 4: <i>Understanding Percents</i> pp. 60-61 Lesson 5: <i>Converting Between Percents, Fractions, and Decimals</i> pp. 62-63 Lesson 6: <i>More Converting Fractions</i> pp. 64-65
b) Make estimates in appropriate situations.	Unit 2 – Lesson 2: <i>Rounding Numbers</i> pp. 38-39
1.03 Compare and order rational numbers.	Unit 1 – Lesson 1: <i>Decimals</i> pp. 18-19 Lesson 2: <i>Understanding Exponents</i> pp. 20-21 Lesson 3: <i>Powers of 10</i> pp. 22-23 Lesson 4: <i>Introduction to Integers</i> pp. 24-25 Unit 2 – Lesson 2: <i>Rounding Numbers</i> pp. 38-39 Unit 3 – Lesson 1: <i>Simplest Form</i> pp. 54-55 Lesson 2: <i>Comparing and Ordering Fractions</i> pp. 56-57 Lesson 3: <i>Converting Fractions to Decimals</i> pp. 58-59

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	Lesson 5: <i>Converting Between Percents, Fractions, and Decimals</i> pp. 62-63 Lesson 6: <i>More Converting Fractions</i> pp. 64-65
1.04 Develop fluency in addition, subtraction, multiplication, and division of nonnegative rational numbers.	
a) Analyze computational strategies.	Unit 2 – Lesson 3: <i>Addition and Subtraction</i> pp. 40-41
b) Describe the effect of operations on size.	Unit 1 – Lesson 2: <i>Understanding Exponents</i> pp. 20-21 Lesson 3: <i>Powers of 10</i> pp. 22-23 Unit 2 – Lesson 3: <i>Addition and Subtraction</i> pp. 40-41
1.05 Develop fluency in the use of factors, multiples, exponential notation, and prime factorization.	Unit 1 – Lesson 2: <i>Understanding Exponents</i> pp. 20-21 Lesson 3: <i>Powers of 10</i> pp. 22-23 Lesson 5: <i>Primes and Composites</i> pp. 26-27 Lesson 7: <i>Greatest Common Factor (GCF)</i> pp. 30-31 Lesson 8: <i>Least Common Multiple (LCM)</i> pp. 32-33
1.06 Use exponential, scientific, and calculator notation to write very large and very small numbers.	Unit 1 – Lesson 2: <i>Understanding Exponents</i> pp. 20-21 Lesson 3: <i>Powers of 10</i> pp. 22-23
1.07 Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil.	Unit 2 – Lesson 8: <i>Word Problems</i> pp. 50-51
<b>COMPETENCY GOAL 2: The learner will select and use appropriate tools to measure two- and three-dimensional figures.</b>	
2.01 Estimate and measure length, perimeter, area, angles, weight, and mass of two- and three-dimensional figures, using appropriate tools.	Unit 7 – Lesson 5: <i>Areas of Rectangles and Parallelograms</i> pp. 134-135 Lesson 6: <i>Area of Triangles</i> pp. 136-137 Lesson 7: <i>Area of Irregular Figures</i> pp. 138-139 Lesson 8: <i>Volume</i> pp. 140-141
2.02 Solve problems involving perimeter/circumference and area of plane figures.	Unit 6 – Lesson 4: <i>Circles</i> pp. 114-115
<b>COMPETENCY GOAL 3: The learner will understand and use properties and relationships of geometric figures in the coordinate plane.</b>	
3.01 Identify and describe the intersection of figures in a plane.	Unit 6 –

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	Lesson 5: <i>The Coordinate Plane</i> pp. 116-117
3.02 Identify the radius, diameter, chord, center, and circumference of a circle; determine the relationships among them.	Unit 6 – Lesson 4: <i>Circles</i> pp. 114-115
3.03 Transform figures in the coordinate plane and describe the transformation.	Unit 6 – Lesson 5: <i>The Coordinate Plane</i> pp. 116-117 Lesson 6: <i>Translation</i> pp. 118-119 Lesson 7: <i>Reflection</i> pp. 120-121 Lesson 8: <i>Rotation</i> pp. 122-123
3.04 Solve problems involving geometric figures in the coordinate plane.	Unit 6 – Lesson 5: <i>The Coordinate Plane</i> pp. 116-117 Lesson 6: <i>Translation</i> pp. 118-119 Lesson 7: <i>Reflection</i> pp. 120-121
<b>COMPETENCY GOAL 4: The learner will understand and determine probabilities.</b>	
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.	Unit 8 – Lesson 7: <i>Probability</i> pp. 156-157 Lesson 8: <i>Probability Experiments</i> pp. 158-159
4.02 Use a sample space to determine the probability of an event.	Unit 8 – Lesson 7: <i>Probability</i> pp. 156-157 Lesson 8: <i>Probability Experiments</i> pp. 158-159
4.03 Conduct experiments involving simple and compound events.	Unit 8 – Lesson 7: <i>Probability</i> pp. 156-157 Lesson 8: <i>Probability Experiments</i> pp. 158-159
4.04 Determine and compare experimental and theoretical probabilities for simple and compound events.	Unit 8 – Lesson 8: <i>Probability Experiments</i> pp. 158-159
4.05 Determine and compare experimental and theoretical probabilities for independent and dependent events.	Unit 8 – Lesson 7: <i>Probability</i> pp. 156-157 Lesson 8: <i>Probability Experiments</i> pp. 158-159
4.06 Design and conduct experiments or surveys to solve problems; report and analyze results.	Unit 8 – Lesson 4: <i>Conducting Surveys</i> pp. 150-151 Lesson 8: <i>Probability Experiments</i> pp. 158-159
<b>COMPETENCY GOAL 5: The learner will demonstrate an understanding of simple algebraic expressions.</b>	
5.01 Simplify algebraic expressions and verify the results using the basic properties of rational numbers.	Unit 5 – Lesson 3: <i>One-Step Algebraic Expressions</i> pp. 94-95 Lesson 4: <i>Two-Step Algebraic Expressions</i> pp. 96-97

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5.02 Use and evaluate algebraic expressions.	Unit 5 – Lesson 3: <i>One-Step Algebraic Expressions</i> pp. 94-95 Lesson 4: <i>Two-Step Algebraic Expressions</i> pp. 96-97
5.03 Solve simple (one- and two-step) equations or inequalities.	Unit 5 – Lesson 5: <i>Solving Equations</i> pp. 98-99 Lesson 8: <i>Inequalities</i> pp. 104-105
5.04 Use graphs, tables, and symbols to model and solve problems involving rates of change and ratios.	Unit 5 – Lesson 7: <i>Graphing Algebraic Equations</i> pp. 102-103