

Northpoint Horizons

Math Elevations™ (Comprehensive Intervention System) Correlated to Grade 3 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 3

Math Content Standard	Math Elevations Level C (Grade 3) Teacher's Guide Examples/Lessons
COMPETENCY GOAL 1: The learner will demonstrate an understanding of fractions and whole number operations.	
1.01 Develop number sense for rational numbers to at least 10,000.	
a) Demonstrate multiple ways to represent numbers using models, words and symbolic representations.	Unit 1 – Lesson 1: <i>Four-Digit Numbers</i> pp. 18-19 Lesson 2: <i>Comparing and Ordering Numbers</i> pp. 20-21 Lesson 3: <i>Rounding</i> pp. 22-23 Lesson 8: <i>Reading and Writing Numbers Through 999,999</i> pp. 32-33
b) Identify the place and the value of a given digit in order to determine the magnitude of the number.	Unit 1 – Lesson 1: <i>Four-Digit Numbers</i> pp. 18-19 Lesson 2: <i>Comparing and Ordering Numbers</i> pp. 20-21 Lesson 3: <i>Rounding</i> pp. 22-23 Lesson 8: <i>Reading and Writing Numbers Through 999,999</i> pp. 32-33
c) Compare and order (including the use of symbolic notation).	Unit 1 – Lesson 2: <i>Comparing and Ordering Numbers</i> pp. 20-21
1.02 Develop understanding of the part-whole meaning of fractions as sharing equally with area, set, region, and length models.	
a) Use models and benchmarks (0, $\frac{1}{2}$, 1) to compare and order fractions including common equivalents.	Unit 1 – Lesson 7: <i>Comparing Fractions</i> pp. 30-31
b) Model and describe common equivalents among: - halves, fourths, and eighths; - thirds and sixths.	Unit 1 – Lesson 7: <i>Comparing Fractions</i> pp. 30-31
1.03 Develop fluency and flexibility with multi-digit addition and subtraction.	

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a) Use strategies for adding and subtracting numbers (including, but not limited to, standard algorithms).	Unit 2 – Lesson 1: <i>Addition and Subtraction Families</i> pp. 36-37 Lesson 2: <i>Adding Two-Digit Numbers</i> pp. 38-39 Lesson 3: <i>Using Estimation in Addition</i> pp. 40-40 Lesson 4: <i>Adding Three- and Four-Digit Numbers</i> pp. 42-43 Lesson 5: <i>Regrouping Two-Digit Numbers for Subtraction</i> pp. 44-45 Lesson 6: <i>Subtraction of Three- and Four-Digit Numbers</i> pp. 46-47 Lesson 7: <i>Subtraction with Zeros</i> pp. 48-49 Lesson 8: <i>Addition and Subtraction Word Problems</i> pp. 50-51
b) Estimate sums and differences and justify the reasonableness of solutions in meaningful contexts.	Unit 2 – Lesson 3: <i>Using Estimation in Addition</i> pp. 40-40
c) Analyze the relationships between operations.	Unit 2 – Lesson 1: <i>Addition and Subtraction Families</i> pp. 36-37 Unit 3 – Lesson 1: <i>Meaning of Multiplication</i> pp. 54-55 Lesson 6: <i>Division as Equal Grouping and Sharing Equally</i> pp. 64-65 Lesson 7: <i>Dividing Using Inverse Operations</i> pp. 66-67
1.04 Demonstrate conceptual understanding of the meaning of multiplication and division through multiple models.	
a) Make connections about the multiples and factors of a given number.	Unit 1 – Lesson 7: <i>Comparing Fractions</i> pp. 30-31
b) Analyze the relationship between multiplication and division.	Unit 3 – Lesson 1: <i>Meaning of Multiplication</i> pp. 54-55 Lesson 6: <i>Division as Equal Grouping and Sharing Equally</i> pp. 64-65 Lesson 7: <i>Dividing Using Inverse Operations</i> pp. 66-67
1.05 Develop fluency with multiplication facts for 1's, 2's, 5's, 10's, 0's and strategies for 3's, 4's, 6's, 7's, 8's, 9's; and related division facts.	Unit 3 – Lesson 2: <i>Multiplication Facts of 2, 5, and 10</i> pp. 56-57 Lesson 3: <i>Multiplication Facts of 3 and 6</i> pp. 58-59 Lesson 4: <i>Multiplication Facts of 4 and 8</i> pp. 60-61 Lesson 5: <i>Multiplication Facts of 7 and 9</i> pp. 62-63 Lesson 6: <i>Division as Equal Grouping and Sharing Equally</i> pp.

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	64-65 Lesson 7: <i>Dividing Using Inverse Operations</i> pp. 66-67 Lesson 8: <i>Multiplication and Division Word Problems</i> pp. 68-69
COMPETENCY GOAL 2: The learner will apply the processes and components of measuring using customary measurement units.	
2.01 Develop an understanding of and use the processes for measuring with customary units of measurement (length, weight, capacity, and temperature) recognizing that:	
a) the type of unit used to measure depends on the attribute being measured,	Unit 7 – Lesson 8: <i>Appropriate Units</i> pp. 140-141
b) larger units can be subdivided into equivalent units (partitioning),	Unit 7 – Lesson 2: <i>Length (Customary Units)</i> pp. 128-129 Lesson 3: <i>Length (Metric)</i> pp. 130-131
c) two objects can be compared in terms of a measurable quality using a third object (transitivity),	Unit 7 – Lesson 2: <i>Length (Customary Units)</i> pp. 128-129 Lesson 3: <i>Length (Metric)</i> pp. 130-131
d) the same unit can be repeated to determine the measure (iteration), and	Unit 7 – Lesson 2: <i>Length (Customary Units)</i> pp. 128-129 Lesson 3: <i>Length (Metric)</i> pp. 130-131
e) the relationship between the size of the unit and the number of units needed (compensatory principle).	Unit 7 – Lesson 2: <i>Length (Customary Units)</i> pp. 128-129 Lesson 3: <i>Length (Metric)</i> pp. 130-131
2.02 Develop and use personal benchmarks (referents) for customary measurements to estimate length, weight, capacity, time, and temperature.	Unit 7 – Lesson 2: <i>Length (Customary Units)</i> pp. 128-129
2.03 Select attributes and appropriate standard units and tools (customary) to estimate and measure length, weight, capacity, temperature, and time to the minute.	Unit 7 – Lesson 2: <i>Length (Customary Units)</i> pp. 128-129 Lesson 8: <i>Appropriate Units</i> pp. 140-141
2.04 Determine the amount of money needed to make change (up to a dollar) using various strategies.	Unit 4 – Lesson 6: <i>Making Change</i> pp. 82-83
COMPETENCY GOAL 3: The learner will use the rectangular coordinate system and the basic geometric properties of two-dimensional shapes.	
3.01 Describe, analyze, compare and classify two-dimensional shapes by properties including sides and angles (acute, obtuse, right).	Unit 6 – Lesson 1: <i>Lines and Angles</i> pp. 108-109 Lesson 2: <i>Types of Lines</i> pp. 110-111

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	Lesson 3: <i>Plane Figures</i> pp. 112-113
3.02 Use rectangular coordinate system to:	
c) identify parallel and perpendicular lines, and	Unit 6 – Lesson 2: <i>Types of Lines</i> pp. 110-111
COMPETENCY GOAL 4: The learner will use and understand the statistical process and simple probability concepts.	
4.01 Use the process of statistical investigation.	
a) Pose questions that involve collecting categorical and numerical data.	Unit 8 – Lesson 3: <i>Pictographs</i> pp. 148-149 Lesson 4: <i>Simple Bar Graphs</i> pp. 150-151 Lesson 5: <i>Bar Graphs with a Scale</i> pp. 152-153
b) Design investigations to answer questions using observations, surveys and experiments.	Unit 8 – Lesson 1: <i>Tally Charts</i> pp. 144-145
c) Collect, organize, represent and analyze data using various representations including tables and bar graphs.	Unit 8 – Lesson 1: <i>Tally Charts</i> pp. 144-145 Lesson 2: <i>Reading Charts and Tables</i> pp. 146-147 Lesson 3: <i>Pictographs</i> pp. 148-149 Lesson 4: <i>Simple Bar Graphs</i> pp. 150-151 Lesson 5: <i>Bar Graphs with a Scale</i> pp. 152-153
4.02 Understand situations involving simple probability.	
a) Judge the probability of events as being (certain, likely, equally likely, unlikely, possible, or impossible) to occur.	Unit 8 – Lesson 6: <i>Likelihood</i> pp. 154-155
b) Conduct simple probability experiments.	Unit 8 – Lesson 7: <i>Probability</i> pp. 156- 157 Lesson 8: <i>Fair and Unfair Games</i> pp. 158-159
c) Describe results using pictures and words, and make predictions.	Unit 8 – Lesson 7: <i>Probability</i> pp. 156- 157 Lesson 8: <i>Fair and Unfair Games</i> pp. 158-159
COMPETENCY GOAL 5: The learner will explore functional relationships and use variables.	
5.01 Analyze numeric and nonnumeric growing patterns to explore functional relationships.	Unit 5 – Lesson 3: <i>Skip Counting</i> pp. 94-95 Lesson 4: <i>Number Patterns</i> pp. 96-97 Lesson 5: <i>Number Machines</i> pp. 98-99
5.02 Model, write and evaluate simple multiplication and division equations.	
a) Represent a problem including using variables to represent unknown	Unit 5 –

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quantities.	Lesson 8: <i>Word Problem Patterns</i> pp. 104-105
b) Demonstrate an understanding of equality.	Unit 5 – Lesson 8: <i>Word Problem Patterns</i> pp. 104-105
c) Find the value of variables.	Unit 5 – Lesson 8: <i>Word Problem Patterns</i> pp. 104-105
COMPETENCY GOAL 6: The learner will make connections, solve problems and reason mathematically.	
6.01 Recognize and apply connections among mathematical ideas.	
a) Connect concepts and skills from previous years to current objectives.	Unit 1 – Lesson 1: <i>Four-Digit Numbers</i> pp. 18-19
b) Connect concepts and skills from multiple strands to solve problems.	Unit 6 – Lesson 7: <i>Solid Figures and Their Nets</i> pp. 120-121
6.02 Develop fluency in solving single and multi-step problems that arise in mathematics and in other contexts, building mathematical knowledge through problem solving.	
6.03 Use reasoning to solve problems.	
a) Understand situations and communicate mathematical problem solving.	Unit 5 – Lesson 8: <i>Word Problem Patterns</i> pp. 104-105
b) Make estimates with appropriate ranges.	Unit 1 – Lesson 3: <i>Rounding</i> pp.22-23
c) Reflect, extend and refine thinking.	Unit 5 – Lesson 8: <i>Word Problem Patterns</i> pp. 104-105
6.04 Use the language and symbols of mathematics and appropriate technology to:	
a) solve problems;	Unit 5 – Lesson 8: <i>Word Problem Patterns</i> pp. 104-105
b) communicate mathematical ideas;	Unit 8 – Lesson 3: <i>Pictographs</i> pp. 148-149
c) demonstrate understanding of problems and solutions through oral, pictorial, and written explanations.	Unit 8 – Lesson 3: <i>Pictographs</i> pp. 148-149
6.05 Create and use representations to organize, record and communicate mathematical ideas	
Unit 8 – Lesson 1: <i>Tally Charts</i> pp. 144-145 Lesson 2: <i>Reading Charts and Tables</i> pp. 146-147	