

Northpoint Horizons

*Math Elevations™ (Comprehensive Intervention System)*  
 Correlated to the Grade 3  
 Colorado Model Content Standards for Mathematics

This document provides a sampling of the extensive math directives offered throughout the *Math Elevations* program that meet the **Colorado Model Content Standards for Mathematics**

Grade 3

Content Standards	<i>Math Elevations</i> Teacher's Guide Level C (Grade 3) Lesson Examples
<b>STANDARD 1: Students develop number sense and use numbers and number relationships in problem-solving situations and communicate the reasoning used in solving these problems.</b>	
1. demonstrate meanings for whole numbers, and commonly used fractions and decimals (for example, $\frac{1}{3}$ , $\frac{3}{4}$ , 0.5, 0.75), and represent equivalent forms of the same number through the use of physical models, drawings, calculators, and computers;	Unit 1 – Lesson 1: <i>Four-Digit Numbers</i> pp. 18-19 Lesson 2: <i>Comparing and Ordering Numbers</i> pp. 20-21 Lesson 5: <i>Fractions as Part of a Whole</i> pp. 26-27 Lesson 6: <i>Fractions as Part of a Set</i> pp. 28-29 Lesson 7: <i>Comparing Fractions</i> pp. 30-31 Lesson 8: <i>Reading and Writing Numbers Through 999,999</i> pp. 32-33 Unit 4 – Lesson 1: <i>Tenths</i> pp. 72-73 Lesson 2: <i>Hundredths</i> pp. 74-75
2. read and write whole numbers and know place-value concepts and numeration through their relationships to counting, ordering, and grouping;	Unit 1 – Lesson 1: <i>Four-Digit Numbers</i> pp. 18-19 Lesson 2: <i>Comparing and Ordering Numbers</i> pp. 20-21 Lesson 8: <i>Reading and Writing Numbers Through 999,999</i> pp. 32-33 Unit 4 – Lesson 1: <i>Tenths</i> pp. 72-73 Lesson 2: <i>Hundredths</i> pp. 74-75
3. use numbers to count, to measure, to label, and to indicate location;	Unit 8 – Lesson 1: <i>Tally Charts</i> pp. 144-145 Lesson 4: <i>Simple Bar Graphs</i> pp. 150-151

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4. develop, test, and explain conjectures about properties of whole numbers, and commonly-used fractions and decimals (for example, $\frac{1}{3}$ , $\frac{3}{4}$ , 0.5, 0.75); and	Unit 1 – Lesson 1: <i>Four-Digit Numbers</i> pp. 18-19 Lesson 2: <i>Comparing and Ordering Numbers</i> pp. 20-21 Lesson 4: <i>Odd and Even Numbers</i> pp.24-25 Lesson 5: <i>Fractions as Part of a Whole</i> pp. 26-27 Lesson 6: <i>Fractions as Part of a Set</i> pp. 28-29 Lesson 7: <i>Comparing Fractions</i> pp. 30-31 Lesson 8: <i>Reading and Writing Numbers Through 999,999</i> pp. 32-33 Unit 4 – Lesson 1: <i>Tenths</i> pp. 72-73 Lesson 2: <i>Hundredths</i> pp. 74-75
5. use number sense to estimate and justify the reasonableness of solutions to problems involving whole numbers, and commonly-used fractions and decimals (for example, $\frac{1}{3}$ , $\frac{3}{4}$ , 0.5, 0.75).	Unit 1 – Lesson 3: <i>Rounding</i> pp. 22-23 Unit 2 – 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>STANDARD 2: Students use algebraic methods to explore, model, and describe patterns and functions involving numbers, shapes, data, and graphs in problem-solving situations and communicate the reasoning used in solving these problems.</b>	
1. reproduce, extend, create, and describe patterns and sequences using a variety of materials (for example, beans, toothpicks, pattern blocks, calculators, unifix cubes, colored tiles);	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 Lesson 6: <i>Picture Patterns</i> pp. 100-101 Lesson 7: <i>Pattern Puzzles</i> pp. 102-103 Lesson 8: <i>Word Problem Patterns</i> pp. 104-105
2. describe patterns and other relationships using tables, graphs, and open sentences;	Unit 5 – Lesson 3: <i>Skip Counting</i> pp. 94-95 Lesson 4: <i>Number Patterns</i> pp. 96-97

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	Lesson 5: <i>Number Machines</i> pp. 98-99 Lesson 6: <i>Picture Patterns</i> pp. 100-101 Lesson 7: <i>Pattern Puzzles</i> pp. 102-103 Lesson 8: <i>Word Problem Patterns</i> pp. 104-105
3. recognize when a pattern exists and use that information to solve a problem; and	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 Lesson 6: <i>Picture Patterns</i> pp. 100-101 Lesson 7: <i>Pattern Puzzles</i> pp. 102-103 Lesson 8: <i>Word Problem Patterns</i> pp. 104-105
4. observe and explain how a change in one quantity can produce a change in another (for example, the relationship between the number of bicycles and the numbers of wheels).	Unit 5 – Lesson 5: <i>Number Machines</i> pp. 98-99
<b>STANDARD 3: Students use data collection and analysis, statistics, and probability in problem-solving situations and communicate the reasoning used in solving these problems.</b>	
1. construct, read, and interpret displays of data including tables, charts, pictographs, 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
3. generate, analyze, and make predictions based on data obtained from surveys and chance devices; and	Unit 8 – Lesson 6: <i>Likelihood</i> pp. 154-155 Lesson 7: <i>Probability</i> pp. 156-157 Lesson 8: <i>Fair and Unfair Games</i> pp. 158-159
4. solve problems using various strategies for making combinations (for example, determining the number of different outfits that can be made using two blouses and three skirts).	Unit 8 – Lesson 7: <i>Probability</i> pp. 156-157
<b>STANDARD 4: Students use geometric concepts, properties, and relationships in problem-solving situations and communicate the reasoning used in solving these problems.</b>	
1. recognize shapes and their relationships (for example, symmetry, congruence) using a variety of materials (for example, pasta, boxes, pattern blocks);	Unit 6 – Lesson 3: <i>Plane Figures</i> pp. 112-113 Lesson 4: <i>Congruent Figures</i> pp. 114-115 Lesson 5: <i>Lines of Symmetry</i> pp. 116-117

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	Lesson 6: <i>Solid Figures</i> pp. 118-119 Lesson 7: <i>Solid Figures and Their Nets</i> pp. 120-121
2. identify, describe, draw, compare classify, and build physical models of geometric figures;	Unit 6 – Lesson 7: <i>Solid Figures and Their Nets</i> pp. 120-121
3. relate geometric ideas to measurement and number sense;	Unit 7 – Lesson 4: <i>Perimeter</i> pp. 132-133 Lesson 5: <i>Area</i> pp. 134-135
4. solve problems using geometric relationships and spatial reasoning (for example, using rectangular coordinates to locate objects, constructing models of three-dimensional objects); and	Unit 6 – Lesson 7: <i>Solid Figures and Their Nets</i> pp. 120-121
5. recognize geometry in their world (for example, in art and in nature).	Unit 6 – Lesson 7: <i>Solid Figures and Their Nets</i> pp. 120-121
<b>STANDARD 5: Students use a variety of tools and techniques to measure, apply the results in problem-solving situations, and communicate the reasoning used in solving these problems.</b>	
1. know, use, describe, and estimate measures of length, perimeter, capacity, weight, time, and temperature;	Unit 7 – Lesson 1: <i>Time</i> pp. 126-127 Lesson 2: <i>Length (Customary Units)</i> pp. 128-129 Lesson 3: <i>Length (Metric)</i> pp. 130-131 Lesson 4: <i>Perimeter</i> pp. 132-133 Lesson 5: <i>Area</i> pp. 134-135 Lesson 6: <i>Weight</i> pp. 136-137 Lesson 7: <i>Capacity</i> pp. 138-139 Lesson 8: <i>Appropriate Units</i> pp. 140-141
2. compare and order objects according to measurable attributes (for example, longest to shortest, lightest to heaviest);	Unit 7 – Lesson 2: <i>Length (Customary Units)</i> pp. 128-129 Lesson 3: <i>Length (Metric)</i> pp. 130-131
3. demonstrate the process of measuring and explain the concepts related to units of measurement;	Unit 7 – Lesson 8: <i>Appropriate Units</i> pp. 140-141
4. use the approximate measures of familiar objects (for example, the width of your finger, the temperature of a room, the weight of a gallon of milk) to develop a sense of measurement; and	Unit 7 – Lesson 2: <i>Length (Customary Units)</i> pp. 128-129 Lesson 3: <i>Length (Metric)</i> pp. 130-131
5. select and use appropriate standard and non-standard units of measurement in problem-solving situations.	Unit 7 – Lesson 2: <i>Length (Customary Units)</i> pp. 128-129 Lesson 3: <i>Length (Metric)</i> pp. 130-131

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<b>STANDARD 6: Students link concepts and procedures as they develop and use computational techniques, including estimation, mental arithmetic, paper-and-pencil, calculators, and computers, in problem-solving situations and communicate the reasoning used in solving these problems.</b>	
1. demonstrate conceptual meanings for the four basic arithmetic operations of addition, subtraction, multiplication, and division;	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
2. add and subtract commonly-used fractions and decimals using physical models (for example, 1/3, 3/4, 0.5, 0.75);	Unit 4 – Lesson 7: <i>Addition and Subtraction of Money</i> pp. 84-85 Lesson 8: <i>Money Word Problems</i> pp. 86-87
3. demonstrate fluency with basic addition, subtraction, multiplication, and division facts without the use of a calculator;	Unit 2 – Lesson 2: <i>Adding Two-Digit Numbers</i> pp. 38-39 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 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 8: <i>Multiplication and Division Word Problems</i> pp. 68-69
4. construct, use, and explain procedures to compute and estimate with whole numbers; and	Unit 2 – Lesson 3: <i>Using Estimation in Addition</i> pp. 40-40
5. select and use appropriate algorithms for computing with whole numbers in problem-solving situations.	Unit 2 – Lesson 8: <i>Addition and Subtraction Word Problems</i> pp. 50-51 Unit 3 – Lesson 8: <i>Multiplication and Division Word Problems</i> pp. 68-

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