

Northpoint Horizons

**Math Elevations™ (Comprehensive Intervention System)
Correlated to
Alaska Content and Performance Standards**

This document provides a sampling of the extensive math directives offered throughout the *Math Elevations* program that meet **Alaska Content and Performance Standards**.

Alaska Content and Performance Standards Grade 3	Math Elevations Level C Teacher’s Guide Examples/Lessons
Numeration:	
Understand and use numeration	
<ul style="list-style-type: none"> • of whole numbers to one thousand by [3] N-1 reading, writing, ordering, or [counting L] (M1.1.1) 	Unit 1 – Lesson 1: <i>Four-Digit Numbers</i> pp. 18-19 Unit 1 – Lesson 2: <i>Comparing and Ordering Numbers</i> pp. 20-21 Unit 1 – Lesson 8: <i>Reading and Writing Numbers Through 999,999</i> pp. 32-33
<ul style="list-style-type: none"> • of whole numbers to one thousand by [3] N-2 modeling (base ten blocks) or identifying place value positions to thousands (M1.1.2) 	Unit 1 – Lesson 1: <i>Four-Digit Numbers</i> pp. 18-19 Unit 1 – Lesson 8: <i>Reading and Writing Numbers Through 999,999</i> pp. 32-33
<ul style="list-style-type: none"> • of whole numbers to one thousand by [3] N-3 using appropriate representations of ordinal or cardinal numbers (M1.1.4) 	Unit 1 – Lesson 1: <i>Four-Digit Numbers</i> pp. 18-19 Unit 1 – Lesson 2: <i>Comparing and Ordering Numbers</i> pp. 20-21 Unit 1 – Lesson 8: <i>Reading and Writing Numbers Through 999,999</i> pp. 32-33
<ul style="list-style-type: none"> • of simple fractions with denominators 2, 3, 4, or 10 by [3] N-4 identifying, describing with explanations, or illustrating equal parts of a whole, a region, or a set (using models) (M1.1.5) 	Unit 1 – Lesson 5: <i>Fractions as Part of a Whole</i> pp. 26-27 Unit 1 – Lesson 6: <i>Fractions as Part of a Set</i> pp. 28-29
<ul style="list-style-type: none"> • of simple fractions with denominators 2, 3, 4, or 10 by [3] N-5 identifying, describing with explanations, or illustrating equivalent 	Unit 1 – Lesson 7: <i>Comparing Fractions</i> pp. 30-31

representation of fractions (using models) (M1.1.5)	
Understanding Meaning of Operations	
[3] N-6 [using models, explanations, number lines, or real-life situations L] describing or illustrating the processes of addition and subtraction of whole numbers and their relationships (M1.1.3)	Unit 2 – Lesson 1: <i>Addition and Subtraction Families</i> pp. 36-37
Number Theory	
[3] N-7 describing or illustrating identity property of addition (L) (M1.1.7)	Unit 2 – Lesson 1: <i>Addition and Subtraction Families</i> pp. 36-37
[3] N-8 modeling (with manipulatives) and explaining commutative property of addition (L) (M1.1.7)	Unit 2 – Lesson 1: <i>Addition and Subtraction Families</i> pp. 36-37
[3] N-9 identifying or using patterns in the number system (skip count by 2's, 5's, or 10's; add or subtract by 10; even or odd numbers) (M1.1.6)	Unit 1 – Lesson 4: <i>Odd and Even Numbers</i> pp.24-25 Unit 5 – Lesson 3: <i>Skip Counting</i> pp. 94-95
Measurement: Select and use systems, units, and tools of measurement	
Measurable Attributes	
[3] MEA-1 estimating length to the nearest inch or foot (L) (M2.1.3)	Unit 7 – Lesson 2: <i>Length (Customary Units)</i> pp. 128-129
[3] MEA-2 comparing and ordering objects according to measurable attribute (calendar, length, [temperature, weight, area, or volume L]) (M2.1.1)	Unit 7 – Lesson 1: <i>Time</i> pp. 126-127 Unit 7 – Lesson 2: <i>Length (Customary Units)</i> pp. 128-129 Unit 7 – Lesson 3: <i>Length (Metric)</i> pp. 130-131 Unit 7 – Lesson 4: <i>Perimeter</i> pp. 132-133 Unit 7 – Lesson 5: <i>Area</i> pp. 134-135 Unit 7 – Lesson 6: <i>Weight</i> pp. 136-137 Unit 7 –

	Lesson 7: <i>Capacity</i> pp. 138-139
[3] MEA-3 identifying or describing objects that are greater than, less than, or equal to a unit of measure (standard or non-standard) (M2.1.2)	Unit 7 – Lesson 2: <i>Length (Customary Units)</i> pp. 128-129 Unit 7 – Lesson 3: <i>Length (Metric)</i> pp. 130-131
[3] MEA-4 selecting an appropriate unit of English, metric, or non-standard measurement to estimate length, time, weight, or temperature (M2.1.3)	Unit 7 – Lesson 8: <i>Appropriate Units</i> pp. 140-141
[3] MEA-5 identifying coins, their value, or the value of a set of coins (M2.1.5)	Unit 4 – Lesson 3: <i>Dollars, Dimes, and Pennies</i> pp. 76-77 Unit 4 – Lesson 4: <i>Nickels and Quarters</i> pp. 78-79 Unit 4 – Lesson 5: <i>Bills and Coins</i> pp. 80-81 Unit 4 – Lesson 6: <i>Making Change</i> pp. 82-83 Unit 4 – Lesson 7: <i>Addition and Subtraction of Money</i> pp. 84-85 Unit 4 – Lesson 8: <i>Money Word Problems</i> pp. 86-87
Measurement Techniques	
[3] MEA-6 measuring length to the nearest half-inch (M2.1.3)	Unit 7 – Lesson 2: <i>Length (Customary Units)</i> pp. 128-129
[3] MEA-7 telling time to the nearest 1/4 hour using an analog clock or [distinguishing morning, afternoon, or evening L] (M2.1.4)	Unit 7 – Lesson 1: <i>Time</i> pp. 126-127
[3] MEA-8 determining elapsed time using a calendar (M2.2.5)	Unit 7 – Lesson 1: <i>Time</i> pp. 126-127
[3] MEA-9 counting back change from \$1.00 (L) (M2.2.6)	Unit 4 – Lesson 6: <i>Making Change</i> pp. 82-83

Estimation and Computation: Perform basic arithmetic functions, make reasoned estimates, and select and use appropriate methods or tools	
Estimation	
[3] E&C-1 finding “how many” or “how much” to 50 (M3.1.1)	Unit 2 – Lesson 3: <i>Using Estimation in Addition</i> pp. 40-41
[3] E&C-2 estimating the results of simple addition and subtraction problems up to 1,000 (M3.1.1)	Unit 2 – Lesson 3: <i>Using Estimation in Addition</i> pp. 40-41
Computation	
[3] E&C-3 recalling basic addition and subtraction facts, sums to 20, and corresponding subtraction facts efficiently (L) (M3.1.2)	Unit 2 – Lesson 1: <i>Addition and Subtraction Families</i> pp. 36-37
[3] E&C-4 adding or subtracting two-digit whole numbers (M3.1.3)	Unit 2 – Lesson 2: <i>Adding Two-Digit Numbers</i> pp. 38-39 Unit 2 – Lesson 5: <i>Regrouping Two-Digit Numbers for Subtraction</i> pp. 44-45 Unit 2 – Lesson 7: <i>Subtraction with Zeros</i> pp. 48-49 Unit 2 – Lesson 8: <i>Addition and Subtraction Word Problems</i> pp. 50-51
[3] E&C-5 using repeated addition to model multiplication with whole numbers with products to 25 (M3.1.4)	Unit 3 – Lesson 1: <i>Meaning of Multiplication</i> pp. 54-55
[3] E&C-6 using grouping or “sharing equally” to model division with whole numbers to 25 (M3.1.4)	Unit 3 – Lesson 6: <i>Division as Equal Grouping and Sharing Equally</i> pp. 64-65
Modeling and Solving Equations and Inequalities	
[3] F&R-1 identifying a missing element in a pattern up to the next three terms (identifying a number using addition or subtraction or objects); or explaining how missing elements could be found (M4.1.1)	Unit 5 – Lesson 4: <i>Number Patterns</i> pp. 96-97
[3] F&R-2 expressing a generalization of a pattern using words (L) (M4.1.1 & M4.1.2)	Unit 5 – Lesson 8: <i>Word Problem Patterns</i> pp. 104-105
[3] F&R-3 using manipulatives, including a calculator, as tools when describing, extending, or representing patterns (L) (M4.1.1 & M4.1.3)	Unit 5 – Lesson 4: <i>Number Patterns</i> pp. 96-97
[3] F&R-4 using an open number sentence (addition or subtraction) to solve for an unknown represented by a box or circle (e.g., $5+ \square=16$, $-7=4$, $5+2= \square$) (M4.1.4)	Unit 5 – Lesson 1: <i>Missing Addends and Subtrahends</i> pp. 90-91 Unit 5 – Lesson 2: <i>Missing Factors</i> pp. 92-93
[3] F&R-5 using appropriate vocabulary or symbols for greater than, less	Unit 5 –

than, or equal to (M4.1.4)	Lesson 1: <i>Missing Addends and Subtrahends</i> pp. 90-91 Unit 5 – Lesson 2: <i>Missing Factors</i> pp. 92-93
Geometry: Construct, transform, and analyze geometric figures	
Geometric Relationships	
[3] G-1 using the number or length of sides to identify, describe, [model L], or compare triangles or rectangles (including squares) (M5.1.1)	Unit 6 – Lesson 3: <i>Plane Figures</i> pp. 112-113
[3] G-2 using the attributes and properties of plane figures to [model L], identify, compare, or describe plane figures (circles, rectangles, squares, and triangles)[and solid figures (cubes, cylinders, or spheres) L] (M5.1.1 & M5.1.2)	Unit 6 – Lesson 3: <i>Plane Figures</i> pp. 112-113 Unit 6 – Lesson 6: <i>Solid Figures</i> pp. 118-119 Unit 6 – Lesson 7: <i>Solid Figures and Their Nets</i> pp. 120-121
Similarity, Congruence, Symmetry, and Transformation of Shapes	
[3] G-3 identifying, creating, or drawing lines of symmetry for real-world objects (e.g., block letters, flags, insects) (M5.1.3)	Unit 6 – Lesson 5: <i>Lines of Symmetry</i> pp. 116-117
[3] G-4 comparing or describing shapes (circles, triangles, or rectangles) as “larger than,” “smaller than,” or “congruent to,” a given shape (M5.1.3)	Unit 6 – Lesson 4: <i>Congruent Figures</i> pp. 114-115
[3] G-5 illustrating or identifying the results of transformations (slides) of polygons (M5.1.5)	Level D/Grade 4 Unit 7 – Lesson 5: <i>Flips and Slides</i> pp. 134-135 Unit 7 – Lesson 6: <i>Turns</i> pp. 136-137
Perimeter, Area, Volume, and Surface Area	
[3] G-6 estimating or determining area or perimeter of rectangular or square shapes on grids (M5.1.4)	Unit 7 – Lesson 4: <i>Perimeter</i> pp. 132-133 Unit 7 – Lesson 5: <i>Area</i> pp. 134-135
[3] G-7 using directional terms (inside, outside, right, left, horizontal, vertical) to describe relative location of objects in a picture (L) (M5.1.6)	Level D Unit 5 – Lesson 8: <i>Directions</i> pp. 104-105
Construction	
[3] G-8 drawing real-world objects that consist of geometric shapes (squares, rectangles, triangles, or circles) (L) (M5.1.7)	Unit 6 – Lesson 3: <i>Plane Figures</i> pp. 112-113
Statistics and Probability: Formulate questions, gather and interpret data, and make predictions	
Data Display	

<p>[3] S&P-1 [designing an investigation and collecting, recording L], organizing, displaying, or explaining the classification of data in real-world problems (e.g., literature, self, or family), using bar graphs, and [Venn diagrams L] (M6.1.1, M6.1.2, & M6.1.5)</p>	<p>Unit 8 – Lesson 1: <i>Tally Charts</i> pp. 144-145 Unit 8 – Lesson 3: <i>Pictographs</i> pp. 148-149 Unit 8 – Lesson 4: <i>Simple Bar Graphs</i> pp. 150-151 Unit 8 – Lesson 5: <i>Bar Graphs with a Scale</i> pp. 152-153</p>
<p>Analysis and Central Tendency</p>	
<p>[3] S&P-2 using information from a variety of displays (tallies, tables, pictographs, bar graphs, or [Venn diagrams L] (M6.1.2)</p>	<p>Unit 8 – Lesson 1: <i>Tally Charts</i> pp. 144-145 Unit 8 – Lesson 3: <i>Pictographs</i> pp. 148-149 Unit 8 – Lesson 4: <i>Simple Bar Graphs</i> pp. 150-151 Unit 8 – Lesson 5: <i>Bar Graphs with a Scale</i> pp. 152-153</p>
<p>[3] S&P-3 using the terms “maximum” or “minimum” (M6.1.3)</p>	<p>Level D Unit 8 – Lesson 1: <i>Data Handling</i> pp. 144-145</p>
<p>Probability</p>	
<p>[3] S&P-4 explaining the differences between chance and certainty or recognizing events that may be certain or chance events (L) (M6.1.4)</p>	<p>Unit 8 – Lesson 6: <i>Likelihood</i> pp. 154-155</p>
<p>[3] S&P-5 [finding and recording L] and making predictions about the likelihood of outcomes of a simple probability experiment (e.g., spinner, tossing a coin) (M6.1.4)</p>	<p>Unit 8 – Lesson 6: <i>Likelihood</i> pp. 154-155 Unit 8 – Lesson 7: <i>Probability</i> pp. 156- 157 Unit 8 – Lesson 8: <i>Fair and Unfair Games</i> pp. 158-159</p>
<p>Problem Solving: Understand and be able to select and use a variety of problem-solving strategies</p>	
<p>[3] PS-1 selecting and applying an appropriate strategy (e.g., guess and check, draw a picture, make a model, extend a pattern) to solve a variety of problems (M7.1.2)</p>	<p>Unit 5 – Lesson 3: <i>Skip Counting</i> pp. 94-95 Unit 5 – Lesson 4: <i>Number Patterns</i> pp. 96-97 Unit 5 – Lesson 5: <i>Number Machines</i> pp. 98-99 Unit 5 –</p>

	Lesson 6: <i>Picture Patterns</i> pp. 100-101
Communication: Form and use appropriate methods to define and explain mathematical relationships	
[3] PS-2 representing mathematical problems using manipulatives, models, pictures, and/or everyday language; or using everyday language to explain thinking about the problem-solving strategies and solutions to problems (M8.1.1, M8.1.2, & M8.1.3)	Unit 8 – Lesson 1: <i>Tally Charts</i> pp. 144-145 Unit 8 – Lesson 2: <i>Reading Charts and Tables</i> pp. 146-147
Reasoning: Use logic and reason to solve mathematical problems	
[3] PS-3 drawing conclusions about mathematical problems; or finding examples that support or refute mathematical statements (M9.1.1 & M9.1.2)	Unit 8 – Lesson 7: <i>Probability</i> pp. 156-157 Unit 8 – Lesson 8: <i>Fair and Unfair Games</i> pp. 158-159
[3] PS-4 explaining whether or not a prediction, estimation, or solution is reasonable (M9.1.3)	Unit 2 – Lesson 3: <i>Using Estimation in Addition</i> pp. 40-41
Connections: Apply mathematical concepts and processes to situations within and outside of school	
[3] PS-5 using real-world contexts such as literature, self, and family (M10.1.1. & M10.1.2)	Unit 4 – Lesson 3: <i>Dollars, Dimes, and Pennies</i> pp. 76-77 Unit 4 – Lesson 4: <i>Nickels and Quarters</i> pp. 78-79 Unit 4 – Lesson 5: <i>Bills and Coins</i> pp. 80-81