

Florida Department of Education
 1996 Sunshine State Standards Grade 4
 Correlated to
 Northpoint Horizons' *Math Elevations*™
 September 2008

This document provides a sampling of the extensive math directives offered throughout the *Math Elevations* program that meet the Florida Sunshine State Standards.

1996 Sunshine State Standards Grades 3-5	<i>Math Elevations</i> Level D Lesson Number / Page Numbers
Number Sense, Concepts, and Operations	
Standard 1: The student understands the different ways numbers are represented and used in the real world. (MA.A.1.2)	
1. Names whole numbers combining three-digit numeration (hundreds, tens, ones) and the use of number periods, such as ones, thousands, and millions and associates verbal names, written word names, and standard numerals with whole numbers, commonly used fractions, decimals, and percents.	1.1 Large Numbers pp. 18-19
2. Understands the relative size of whole numbers, commonly used fractions, decimals, and percents.	1.2 Comparing Numbers pp. 20-21 1.7 Comparing and Rounding Decimals pp. 30-31 4.1 Comparing and Ordering Fractions pp. 72-73 4.2 Equivalent Fractions pp. 74-75
3. Understands concrete and symbolic representations of whole numbers, fractions, decimals, and percents in real-world situations.	1.1 Large Numbers pp. 18-19 1.3 Rounding pp. 22-23 1.4 Fractions as Part of a Whole pp. 24-25 1.5 Fractions of a Set pp. 26-27 1.6 Fractions as Decimals pp. 28-29 1.7 Comparing and Rounding Decimals pp. 30-31 1.8 Problem Solving pp. 32-33 4.2 Equivalent Fractions pp. 74-75
4. Understands that numbers can be represented in a variety of equivalent forms using whole numbers, decimals, fractions, and percents.	1.6 Fractions as Decimals pp. 28-29 4.2 Equivalent Fractions pp. 74-75 4.3 Converting Between Improper Fractions

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	and Mixed Numbers pp. 76-77 4.4 Fractions and Mixed Numbers as Decimals pp. 78-79
Standard 2: The student understands number systems. (MA.A.2.2)	
1. Uses place-value concepts of grouping based upon powers of ten (thousandths, hundredths, tenths, ones, tens, hundreds, thousands) within the decimal number system.	1.7 Comparing and Rounding Decimals pp. 30-31
Standard 3: The student understands the effects of operations on numbers and the relationships among these operations, selects appropriate operations, and computes for problem solving. (MA.A.3.2)	
1. Understands and explains the effects of addition, subtraction, and multiplication on whole numbers, decimals, and fractions, including mixed numbers, and the effects of division on whole numbers, including the inverse relationship of multiplication and division.	2.1 Mental Addition and Subtraction pp. 36-37 3.1 Mental Multiplication pp. 54-55 3.2 Patterns of Calculations pp. 56-57
2. Selects the appropriate operation to solve specific problems involving addition, subtraction, and multiplication of whole numbers, decimals, and fractions, and division of whole numbers.	1.8 Problem Solving pp. 32-33
3. Adds, subtracts, and multiplies whole numbers, decimals, and fractions, including mixed numbers, and divides whole numbers to solve real-world problems, using appropriate methods of computing, such as mental mathematics, paper and pencil, and calculator.	2.1 Mental Addition and Subtraction pp. 36-37 2.2 Column Addition (I) pp. 38-39 2.3 Making Change pp. 40-41 2.4 Column Subtraction (I) pp. 42-43 2.5 Word Problems (Three- and Four-Digit Numbers) pp. 44-45 2.6 Column Addition (II) pp. 46-47 2.7 Column Subtraction (II) pp. 48-49 2.8 Word Problems (Five-Digit Numbers) pp. 50-51 3.3 Multiplication by One-Digit Numbers pp.

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	58-59 3.4 Multiplication by Two-Digit Numbers pp. 60-61 3.5 Division with Remainders pp. 62-63 3.6 Long Division (Two-Digit ÷ One-Digit Numbers) pp. 64-65 3.7 Long Division (Three-Digit ÷ One-Digit Numbers) pp. 66-67 3.8 Word Problems pp. 68-69 4.5 Addition of Fractions with Like Denominators pp. 80-81 4.6 Subtraction of Fractions with Like Denominators pp. 82-83 4.7 Addition and Subtraction of Mixed Numbers pp. 84-85 4.8 Addition and Subtraction of Fractions with Unlike Denominators pp. 86-87
Standard 4: The student uses estimation in problem solving and computation. (MA.A.4.2)	
1. Uses and justifies different estimation strategies in a real-world problem situation and determines the reasonableness of results of calculations in a given problem situation.	1.3 Rounding pp. 22-23 1.7 Comparing and Rounding Decimals pp. 30-31 2.2 Column Addition (I) pp. 38-39 2.4 Column Subtraction (I) pp. 42-43 2.5 Word Problems (Three- and Four-Digit Numbers) pp. 44-45 3.6 Long Division (Two-Digit ÷ One-Digit Numbers) pp. 64-65 3.7 Long Division (Three-Digit ÷ One-Digit

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	Numbers) pp. 66-67
Measurement	
Standard 1: The student measures quantities in the real world and uses the measures to solve problems. (MA.B.1.2)	
1. Uses concrete and graphic models to develop procedures for solving problems related to measurement including length, weight, time, temperature, perimeter, area, volume, and angle.	6.1 Perimeter of Squares and Rectangles pp. 108-109 6.2 Area of Squares and Rectangles pp. 110-111 6.3 Area and Perimeter of Irregular Polygons pp. 112-113 6.4 Metric Measurement pp. 114-115 6.5 Measuring Capacity pp. 116-117 6.6 Capacity Conversions pp. 118-119 6.7 Weight pp. 120-121
2. Solves real-world problems involving length, weight, perimeter, area, capacity, volume, time, temperature, and angles.	6.1 Perimeter of Squares and Rectangles pp. 108-109 6.2 Area of Squares and Rectangles pp. 110-111 6.3 Area and Perimeter of Irregular Polygons pp. 112-113 6.4 Metric Measurement pp. 114-115 6.5 Measuring Capacity pp. 116-117 6.6 Capacity Conversions pp. 118-119 6.7 Weight pp. 120-121
Standard 2: The student compares, contrasts, and converts within systems of measurement (both standard/nonstandard and metric/customary). (MA.B.2.2)	
1. Uses direct (measured) and indirect (not measured) measures to calculate and compare measurable characteristics.	6.4 Metric Measurement pp. 114-115 6.5 Measuring Capacity pp. 116-117

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	6.7 Weight pp. 120-121
2. Selects and uses appropriate standard and nonstandard units of measurement, according to type and size.	6.6 Capacity Conversions pp. 118-119 6.8 Appropriate Units pp. 122-123
Standard 3: The student estimates measurements in real-world problem situations. (MA.B.3.2)	
1. Solves real-world problems involving estimates of measurements, including length, time, weight, temperature, money, perimeter, area, and volume.	6.3 Area and Perimeter of Irregular Polygons pp. 112-113 6.5 Measuring Capacity pp. 116-117 6.7 Weight pp. 120-121
Standard 4: The student selects and uses appropriate units and instruments for measurement to achieve the degree of precision and accuracy required in real-world situations. (MA.B.4.2)	
1. Determines which units of measurement, such as seconds, square inches, dollars per tankful, to use with answers to real-world problems.	6.8 Appropriate Units pp. 122-123
Geometry and Spatial Sense	
Standard 1: The student describes, draws, identifies, and analyzes two- and three-dimensional shapes. (MA.C.1.2)	
1. Given a verbal description, draws and/or models two- and three-dimensional shapes and uses appropriate geometric vocabulary to write a description of a figure or a picture composed of geometric figures.	7.1 Types of Angles pp. 126-127 7.2 Parallel and Perpendicular Lines pp. 128-129 7.3 Classifying Polygons pp. 130-131 7.7 Solid Figures pp. 138-139
Standard 2: The student visualizes and illustrates ways in which shapes can be combined, subdivided, and changed. (MA.C.2.2)	
1. Understands the concepts of spatial relationships, symmetry, reflections, congruency, and similarity.	7.4 Symmetry pp. 132-133
2. Predicts, illustrates, and verifies which figures could result from a flip, slide, or turn of a given figure.	7.5 Flips and Slides pp. 134-135 7.6 Turns pp. 136-137

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Standard 3: The student uses coordinate geometry to locate objects in both two and three dimensions and to describe objects algebraically. (MA.C.3.2)	
1. Represents and applies a variety of strategies and geometric properties and formulas for two- and three-dimensional shapes to solve real-world and mathematical problems.	6.1 Perimeter of Squares and Rectangles pp. 108-109 6.2 Area of Squares and Rectangles pp. 110-111 6.3 Area and Perimeter of Irregular Polygons pp. 112-113 7.8 Volume pp. 140-141
2. Identifies and plots positive ordered pairs (whole numbers) in a rectangular coordinate system (graph).	5.7 Ordered Pairs pp. 102-103 5.8 Directions pp. 104-105
Algebraic Thinking	
Standard 1: The student describes, analyzes, and generalizes a wide variety of patterns, relations, and functions. (MA.D.1.2)	
1. Describes a wide variety of patterns and relationships through models, such as manipulatives, tables, graphs, rules using algebraic symbols.	5.4 Functional Relationships pp. 96-97 5.5 Linear Functions pp. 98-99
2. Generalizes a pattern, relation, or function to explain how a change in one quantity results in a change in another.	5.4 Functional Relationships pp. 96-97 5.5 Linear Functions pp. 98-99
Standard 2: The student uses expressions, equations, inequalities, graphs, and formulas to represent and interpret situations. (MA.D.2.2)	
1. Represents a given simple problem situation using diagrams, models, and symbolic expressions translated from verbal phrases, or verbal phrases translated from symbolic expressions, etc.	5.1 Order of Operations pp. 90-91 5.4 Functional Relationships pp. 96-97 5.5 Linear Functions pp. 98-99 5.6 Writing Simple Algebraic Equations pp. 100-101
2. Uses informal methods, such as physical models and graphs, to solve real-world problems involving equations and inequalities.	5.4 Functional Relationships pp. 96-97 5.5 Linear Functions pp. 98-99 5.6 Writing Simple Algebraic Equations pp.

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	100-101
Data Analysis and Probability	
Standard 1: The student understands and uses the tools of data analysis for managing information. (MA.E.1.2)	
1. Solves problems by generating, collecting, organizing, displaying, and analyzing data using histograms, bar graphs, circle graphs, line graphs, pictographs, and charts.	8.1 Data Handling pp. 144-145 8.3 Pictographs pp. 148-149 8.4 Bar Graphs pp. 150-151 8.5 Line Graphs pp. 152-153
2. Determines range, mean, median, and mode from sets of data.	8.1 Data Handling pp. 144-145 8.2 Mode and Mean pp. 146-147
3. Analyzes real-world data to recognize patterns and relationships of the measures of central tendency using tables, charts, histograms, bar graphs, line graphs, pictographs, and circle graphs generated by appropriate technology, including calculators and computers.	8.1 Data Handling pp. 144-145 8.2 Mode and Mean pp. 146-147 8.3 Pictographs pp. 148-149 8.4 Bar Graphs pp. 150-151 8.5 Line Graphs pp. 152-153
Standard 2: The student identifies patterns and makes predictions from an orderly display of data using concepts of probability and statistics. (MA.E.2.2)	
1. Uses models, such as tree diagrams, to display possible outcomes and to predict events.	8.7 Determining Possible Outcomes pp. 156-157
2. Predicts the likelihood of simple events occurring.	8.8 Probability pp. 158-159
Standard 3: The student uses statistical methods to make inferences and valid arguments about real-world situations. (MA.E.3.2)	
1. Designs experiments to answer class or personal questions, collects information, and interprets the results using statistics (range, mean, median, and mode) and pictographs, charts, bar graphs, circle graphs, and line graphs.	8.1 Data Handling pp. 144-145 8.2 Mode and Mean pp. 146-147 8.3 Pictographs pp. 148-149 8.4 Bar Graphs pp. 150-151 8.5 Line Graphs pp. 152-153
2. Uses statistical data about life situations to make predictions and justifies	8.7 Determining Possible Outcomes pp. 156-

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reasoning.	157 8.8 Probability pp. 158-159