

Florida Department of Education 1996 Sunshine State Standards Grade 5
 Correlated to Northpoint Horizons' *Math Elevations*TM
 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 E 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 Whole Number Place Value pp. 18-19
2. Understands the relative size of whole numbers, commonly used fractions, decimals, and percents.	1.3 Working with Whole Numbers pp. 22-23 1.4 Working with Decimal Numbers pp. 24-25 3.5 Comparing and Ordering Fractions pp. 62-63 3.6 Comparing Fractions Using the LCD pp. 64-65 3.8 Comparing and Ordering Fractions and Decimals pp. 68-69 4.7 Converting Between Percents, Decimals, and Fractions pp. 84-85
3. Understands concrete and symbolic representations of whole numbers, fractions, decimals, and percents in real-world situations.	1.1 Whole Number Place Value pp. 18-19 1.2 Place Value Through Thousandths pp. 20-21 3.1 Understanding Fractions pp. 54-55 4.6 Understanding Percent pp. 82-83
4. Understands that numbers can be represented in a variety of equivalent forms using whole numbers, decimals, fractions, and percents.	3.2 Equivalent Fractions and Simplest Form pp. 56-57 3.3 Mixed Numbers and Improper Fractions pp. 58-59

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	3.4 Relating Decimals and Fractions pp. 60-61 3.7 Converting Fractions to Decimals pp. 66-67 4.6 Understanding Percent pp. 82-83 4.7 Converting Between Percents, Decimals, and Fractions pp. 84-85 4.8 Percent of a Quantity pp. 86-87
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.	1.1 Whole Number Place Value pp. 18-19 1.2 Place Value Through Thousandths pp. 20-21
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.	1.6 Divisibility pp. 28-29 2.3 Multiplying by Multiples of 10, 100, and 1,000 pp. 40-41 2.8 Interpreting Remainders pp. 50-51
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.	1.6 Divisibility pp. 28-29 2.1 Addition and Subtraction of Whole Numbers pp. 36-37 2.2 Addition and Subtraction of Decimal Numbers pp. 38-39 2.3 Multiplying by Multiples of 10, 100, and 1,000 pp. 40-41 2.4 Multiplying by a Two-Digit Factor pp. 42-43 2.5 Multiplying Decimals pp. 44-45 2.6 Estimating Quotients pp. 46-47

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	2.7 Long Division pp. 48-49 2.8 Interpreting Remainders pp. 50-51 4.1 Addition and Subtraction of Fractions (Like Denominators) pp. 72-73 4.2 Addition and Subtraction of Mixed Numbers (Like Denominators) pp. 74-75 4.3 Addition and Subtraction of Fractions (Unlike Denominators) pp. 76-77 4.4 Addition of Mixed Numbers (Unlike Denominators) pp. 78-79 4.5 Subtraction of Mixed Numbers (Unlike Denominators) pp. 80-81
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 Working with Whole Numbers pp. 22-23 1.4 Working with Decimal Numbers pp. 24-25 2.1 Addition and Subtraction of Whole Numbers pp. 36-37 2.6 Estimating Quotients pp. 46-47
Standard 5: The student understands and applies theories related to numbers. (MA.A.5.2)	
1. Understands and applies basic number theory concepts, including primes, composites, factors, and multiples.	1.7 Greatest Common Factor pp. 30-31 1.8 Least Common Multiple pp. 32-33
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,	6.1 Area and Perimeter pp. 108-109 6.2 Investigating Area and Perimeter pp. 110-

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volume, and angle.	111 6.3 Perimeter of Irregular Shapes pp. 112-113 6.4 Area of Parallelograms pp. 114-115 6.5 Area of Triangles pp. 116-117 6.6 Volume of Rectangular Solids pp. 118-119 6.7 Converting Within the Metric System pp. 120-121 6.8 Converting Within the Customary System pp. 122-123
2. Solves real-world problems involving length, weight, perimeter, area, capacity, volume, time, temperature, and angles.	6.1 Area and Perimeter pp. 108-109 6.2 Investigating Area and Perimeter pp. 110-111 6.3 Perimeter of Irregular Shapes pp. 112-113 6.4 Area of Parallelograms pp. 114-115 6.5 Area of Triangles pp. 116-117 6.6 Volume of Rectangular Solids pp. 118-119 6.7 Converting Within the Metric System pp. 120-121 6.8 Converting Within the Customary System pp. 122-123
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.	6.7 Converting Within the Metric System pp. 120-121 6.8 Converting Within the Customary System pp. 122-123
2. Selects and uses appropriate standard and nonstandard units of measurement, according to type and size.	6.7 Converting Within the Metric System pp. 120-121 6.8 Converting Within the Customary System

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	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 Geometric Concepts pp. 126-127 7.2 Lines pp. 128-129 7.3 Measuring and Classifying Angles pp. 130-131 7.4 Classifying Triangles pp. 132-133 7.7 Classifying Quadrilaterals pp. 138-139 7.8 Solid Figures pp. 140-141
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.	7.5 Translations pp. 134-135 7.6 Reflections and Rotations pp. 136-137
2. Predicts, illustrates, and verifies which figures could result from a flip, slide, or turn of a given figure.	7.5 Translations pp. 134-135 7.6 Reflections and Rotations pp. 136-137
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 Area and Perimeter pp. 108-109 6.2 Investigating Area and Perimeter pp. 110-111 6.3 Perimeter of Irregular Shapes pp. 112-113 6.4 Area of Parallelograms pp. 114-115 6.5 Area of Triangles pp. 116-117 6.6 Volume of Rectangular Solids pp. 118-119
2. Identifies and plots positive ordered pairs (whole numbers) in a rectangular coordinate system (graph).	5.8 The Coordinate Plane pp. 104-105

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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.	5.2 Investigating Patterns pp. 92-93
2. Generalizes a pattern, relation, or function to explain how a change in one quantity results in a change in another.	5.2 Investigating Patterns pp. 92-93
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 5.3 Algebraic Expressions pp. 94-95 5.4 Evaluating Expressions pp. 96-97 5.5 Solving One-Step Equations pp. 98-99 5.6 Problem Solving pp. 100-101 5.7 Inequalities pp. 102-103
2. Uses informal methods, such as physical models and graphs, to solve real-world problems involving equations and inequalities.	5.3 Algebraic Expressions pp. 94-95 5.4 Evaluating Expressions pp. 96-97 5.5 Solving One-Step Equations pp. 98-99 5.6 Problem Solving pp. 100-101 5.7 Inequalities pp. 102-103
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.	8.6 Bar Graphs pp. 154-155 8.7 Line Graphs pp. 156-157 8.8 Circle Graphs pp. 158-159
2. Determines range, mean, median, and mode from sets of data.	8.4 Mode, Median, and Range pp. 150-151 8.5 The Mean pp. 152-153

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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.	8.4 Mode, Median, and Range pp. 150-151 8.5 The Mean pp. 152-153 8.6 Bar Graphs pp. 154-155 8.7 Line Graphs pp. 156-157 8.8 Circle Graphs pp. 158-159
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.	8.1 Possible Outcomes pp. 144-145
2. Predicts the likelihood of simple events occurring.	8.2 Evaluating Probability pp. 146-147 8.3 Probability Experiments pp. 148-149
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.	8.3 Probability Experiments pp. 148-149
2. Uses statistical data about life situations to make predictions and justifies reasoning.	8.2 Evaluating Probability pp. 146-147