

Northpoint Horizons

Math Elevations[™] Correlated to the Florida Sunshine State 2007 Mathematics Content Standards

Grade 4

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

Math Content Standard	<i>Math Elevations</i> Level D Teacher's Guide Examples/Lessons
BIG IDEA 1: Develop quick recall of multiplication facts and related division facts and fluency with whole number multiplication.	Unit 3 – Multiplication and Division
MA.4.A.1.1 Use and describe various models for multiplication in problem-solving situations, and demonstrate recall of basic multiplication and related division facts with ease.	Unit 3 – Lesson 1: <i>Mental Multiplication</i> pp. 54-55 Lesson 2: <i>Patterns of Calculations</i> pp. 56-57 Lesson 3: <i>Multiplication by One-Digit Numbers</i> pp. 58-59 Lesson 4: <i>Multiplication by Two-Digit Numbers</i> pp. 60-61 Lesson 5: <i>Division with Remainders</i> pp. 62-63 Lesson 6: <i>Long Division (Two-Digit ÷ One-Digit Numbers)</i> pp. 64-65 Lesson 7: <i>Long Division (Three-Digit ÷ One-Digit Numbers)</i> pp. 66-67 Lesson 8: <i>Word Problems</i> pp. 68-69
MA.4.A.1.2 Multiply multi-digit whole numbers through four digits fluently, demonstrating understanding of the standard algorithm, and checking for reasonableness of results, including solving real-world problems.	Unit 3 – Lesson 3: <i>Multiplication by One-Digit Numbers</i> pp. 58-59 Lesson 4: <i>Multiplication by Two-Digit Numbers</i> pp. 60-61 Lesson 8: <i>Word Problems</i> pp. 68-69
BIG IDEA 2: Develop an understanding of decimals,	Unit 1 - Numbers and Operations

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including the connection between fractions and decimals.	Unit 4 - Fractions
MA.4.A.2.1 Use decimals through the thousandths place to name numbers between whole numbers.	Unit 1 – Lesson 6: <i>Fractions as Decimals</i> pp. 28-29 Lesson 7: <i>Comparing and Rounding Decimals</i> pp. 30-31 Unit 4 – Lesson 4 – <i>Fractions and Mixed Numbers as Decimals</i> pp. 78-79
MA.4.A.2.2 Describe decimals as an extension of the base-ten number system.	Unit 1 – Lesson 6: <i>Fractions as Decimals</i> pp. 28-29 Lesson 7: <i>Comparing and Rounding Decimals</i> pp. 30-31 Unit 4 – Lesson 4 – <i>Fractions and Mixed Numbers as Decimals</i> pp. 78-79
MA.4.A.2.3 Relate equivalent fractions and decimals with and without models, including locations on a number line.	Unit 1 – Lesson 6: <i>Fractions as Decimals</i> pp. 28-29 Lesson 7: <i>Comparing and Rounding Decimals</i> pp. 30-31 Unit 4 – Lesson 4 – <i>Fractions and Mixed Numbers as Decimals</i> pp. 78-79
MA.4.A.2.4 Compare and order decimals, and estimate fraction and decimal amounts in real-world problems.	Unit 1 – Lesson 7: <i>Comparing and Rounding Decimals</i> pp. 30-31
BIG IDEA 3: Develop an understanding of area and determine the area of two-dimensional shapes.	Unit 6 – Measurement
MA.4.G.3.1 Describe and determine area as the number of same-sized units that cover a region in the plane, recognizing that a unit square is the standard unit for measuring area.	Unit 6 – Lesson 2: <i>Area of Squares and Rectangles</i> pp. 110-111 Lesson 3: <i>Area and Perimeter of Irregular Polygons</i> pp. 112-113
MA.4.G.3.2 Justify the formula for the area of the rectangle “area = base x height.”	Unit 6 – Lesson 2: <i>Area of Squares and Rectangles</i> pp. 110-111
MA.4.G.3.3 Select and use appropriate units, both customary and metric, strategies, and measuring	Unit 6 – Lesson 2: <i>Area of Squares and Rectangles</i> pp. 110-111

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tools to estimate and solve real-world area problems.	
SUPPORTING IDEAS: Algebra	Unit 5 – Algebra and Functions
MA.4.A.4.1 Generate algebraic rules and use all four operations to describe patterns, including nonnumeric growing or repeating patterns.	Unit 5 – Lesson 1 – <i>Order of Operations</i> pp. 90-91 Lesson 2 – <i>Solving Open Sentences (Addition and Subtraction)</i> pp. 92-93 Lesson 3 – <i>Solving Open Sentences (Multiplication and Division)</i> pp. 94-95 Lesson 4: <i>Functional Relationships</i> pp. 96-97 Lesson 5: <i>Linear Functions</i> pp. 98-99
MA.4.A.4.2 Describe mathematics relationships using expressions, equations, and visual representations.	Unit 5 – Lesson 6 – <i>Writing Simple Algebraic Equations</i> pp. 100-101 Lesson 7: <i>Ordered Pairs</i> pp. 102-103 Lesson 8: <i>Directions</i> pp. 104-105
MA.4.A.4.3 Recognize and write algebraic expressions for functions with two operations.	Unit 5 – Lesson 1 – <i>Order of Operations</i> pp. 90-91 Lesson 2 – <i>Solving Open Sentences (Addition and Subtraction)</i> pp. 92-93 Lesson 3 – <i>Solving Open Sentences (Multiplication and Division)</i> pp. 94-95 Lesson 5: <i>Linear Functions</i> pp. 98-99
SUPPORTING IDEAS: Geometry and Measurement	Unit 7 - Geometry
MA.4.G.5.1 Classify angles of two-dimensional shapes using benchmark angles (i.e. 45°, 90°, 180°, and 360°).	Unit 7 – Lesson 1: <i>Types of Angles</i> pp. 126-127 Lesson 3: <i>Classifying Polygons</i> pp. 130-131
MA.4.G.5.2 Identify and describe the results of translations, reflections, and rotations of 45, 90, 180, 270, and 360 degrees, including figures with line and rotational symmetry.	Unit 7 – Lesson 4 – <i>Symmetry</i> pp. 132-33 Lesson 5: <i>Flips and Slides</i> pp. 134-135 Lesson 6: <i>Turns</i> pp. 136-137
MA.4.G.5.3 Identify and build a three-dimensional object from a two-dimensional representation of that	Unit 7 – Lesson 7: <i>Solid Figures</i> pp. 138-139

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object and vice versa.	Lesson 8: <i>Volume</i> pp. 140-141
SUPPORTING IDEAS: Numbers and Operations	Unit 1 - Numbers and Operations Unit 2 – Addition and Subtraction Unit 3 – Multiplication and Division Unit 4 – Fractions Unit 8 – Data Analysis, Statistics, and Probability
MA.4.A.6.1 Use and represent numbers through millions in various contexts, including estimation of relative sizes of amounts or distances.	Unit 1 – Lesson 1: <i>Large Numbers</i> pp. 18-19 Lesson 2: <i>Comparing Numbers</i> pp. 20-21 Lesson 3: <i>Rounding</i> pp. 22-23 Lesson 7: <i>Comparing and Rounding Decimals</i> pp. 30-31 Lesson 8 – <i>Problem Solving</i> pp. 32-33
MA.4.A.6.2 Use models to represent division as: <ul style="list-style-type: none"> • the inverse of multiplication • as partitioning • as successive subtraction 	Unit 3 – Lesson 5: <i>Division with Remainders</i> pp. 62-63 Lesson 6: <i>Long Division (Two-Digit ÷ One –Digit Numbers)</i> pp. 64-65 Lesson 7: <i>Long Division (Three-Digit ÷ One-Digit Numbers)</i> pp. 66-67 Lesson 8: <i>Word Problems</i> pp. 68-69
MA.4.A.6.3 Generate equivalent fractions and simplify fractions.	Unit 4 – Lesson 2: <i>Equivalent Fractions</i> pp. 74-75 Lesson 3: <i>Converting Between Improper Fractions and Mixed Numbers</i> pp. 76-77
MA.4.A.6.4 Determine factors and multiples for specified whole numbers.	Unit 3 – Lesson 1: <i>Mental Multiplication</i> pp. 54-55 Lesson 2: <i>Patterns of Calculations</i> pp. 56-57 Lesson 3: <i>Multiplication by One-Digit Numbers</i> pp. 58-59 Lesson 4: <i>Multiplication by Two-Digit Numbers</i> pp. 60-61
MA.4.A.6.5 Relate halves, fourths, tenths, and hundredths to decimals and percents.	Unit 1 – Lesson 6: <i>Fractions as Decimals</i> pp. 28-29 Unit 4 – Lesson 4 – <i>Fractions and Mixed Numbers as Decimals</i> pp. 78-79

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MA.4.A.6.6 Estimate and describe reasonableness of estimates; determine the appropriateness of an estimate versus an exact answer.	Unit 1 – Lesson 3: <i>Rounding</i> pp. 22-23 Unit 2 – Lesson 1: <i>Mental Addition and Subtraction</i> pp. 36-37 Lesson 2: <i>Column Addition (I)</i> pp. 38-39 Lesson 5: <i>Word Problems (Three- and Four- Digit Numbers)</i> pp. 44-45 Lesson 7: <i>Column Subtraction (II)</i> pp. 48-49 Lesson 8 – <i>Word Problems (Five-Digit Numbers)</i> pp. 50-51 Unit 8 - Lesson 8: <i>Probability</i> pp. 158-159