

CORRELATION
of
the Understanding Numeration PLUS & Understanding Math PLUS programs
with
Florida
Kindergarten Math Standards
January 2008

Note: a. The Understanding Math PLUS series of programs consist of 10 programs written for Kindergarten to 10th Grade.

The 10 programs are:

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| Understanding Fractions | Understanding Whole Numbers and Integers |
| Understanding Probability | Understanding Percent |
| Understanding Exponents | Understanding Equations |
| Understanding Algebra | Understanding Graphing |
| Understanding Numeration | |
| Understanding Measurement and Geometry | |

Note: b. The Understanding Numeration software for K to 3 is set up so that the teacher selects items in the following order:

Concept .. from 5 concepts .. Counting, Comparing & Ordering, Place Value, Operations and Problem Solving.

Skill .. chosen from the list of specific learning expectations

Level .. indicates the levels of development for Kindergarten to 3rd grade.

Level	Upper Range of Number
A	10
B	20
C	100
D	1000

Lesson .. 250 lessons are sequenced to build understanding of concepts.

A detailed Lesson Synopsis on the website www.neufeldmath.com to assist the teacher by stating the lesson contents but also by giving lesson suggestions.

Worksheet .. off computer worksheets are selected from the CD by a code.

Note: c. The remaining 9 Understanding Math programs for 4th to 10th grade are set up so that they can be used in a variety of teaching and learning environments ranging from a teacher centered approach with 1 computer to a student centered lab approach. The lessons can also be used in remediation, tutorial, intervention, resource, fast-tracking.

Each topic has:

..an interactive concept introduction, usually with a variety of graphic approaches.

..a number of particular examples

..practice questions with random questions but particular feedback

..a topic test with random questions and tracking

..off computer worksheets selected from the website .. www.neufeldmath.com

NUMBER SENSE**Standard 1: The student understands the different ways numbers are represented and used in the real world.**

NUMBER	BENCHMARK	UNDERSTANDING NUMERATION PLUS lessons
MA.A.1.1.1.K MA.A.1.1.2.K	associates verbal names and standard numerals with the whole numbers through 31 using language experiences and manipulatives. understands the relative size of whole numbers through thirty-one.	COUNTING Skill – Reading and Printing Numerals Level A Introduction : Counting 1 to 10: worksheet #1, #2 Things in a Square #1 Join up to 10 Dots Building a Number Line Building a Vertical Number Line Level B Introduction: Counting 1-20 Things in a Square #2:Worksheets #1, #2 Join up to 20 Dots
MA.A.1.1.3.K	uses objects to represent whole numbers and relates these numbers to real-world situations.	COUNTING Skill – Associating Numbers in a Real World Context Level A The Street Scene: Worksheets #1, #2 The Zoo
MA.A.1.1.4.K	understands that whole numbers can be represented in a variety of equivalent forms.	COUNTING Skill – 1 to 1 Correspondence of # to Objects Level A Keep Track by Marking: Worksheets #1, #

Standard 2: The student understands number systems.

NUMBER	BENCHMARK	UNDERSTANDING NUMERATION PLUS lessons
MA.A.2.1.1.K	understands and applies the concepts of counting by 1's, 2's, 5's, and 10's, and grouping by 2's, 5's, and 10's.	<p>COUNTING Skill – Counting Using Money Level B “ Pennies, Nickels, Dimes”: worksheet #1, #2 “ Coins – Count by 10s, 5s, and 1s” : worksheet #1, #2</p>
MA.A.2.1.2.K	uses number patterns and the relationships among counting and grouping strategies to demonstrate an understanding of the whole number system.	<p>COUNTING Skill – Skip Counting and Patterns Level C Patterns in Rows: worksheet #1, #2</p>

Standard 3: The student understands the effects of operations on numbers and relationships among these operations, selects appropriate operations, and computes for problem solving.

NUMBER	BENCHMARK	UNDERSTANDING NUMERATION PLUS lessons
MA.A.3.1.1.K	understands and explains the effects of putting together and taking apart sets of objects	
MA.A.3.1.2.K MA.A.3.1.3.K	<p>selects the appropriate operation to solve specific problems involving addition and subtraction of whole numbers.</p> <p>adds and subtracts whole numbers to solve real-world problems, using manipulatives.</p>	<p>OPERATIONS Skill – Introduce Addition...concretely... “in all” & “together” Level A Addition Using Gumballs #1: Worksheets #1, #2 Addition Using Beans #1: Worksheets #1, #2 Add Number of Sides of Shapes #1: Worksheets #1, #2</p> <p>Skill – Introduce Addition Concretely... “and” Level A Addition Using Gumballs #2: Worksheets #1, #2 Addition Using Beans #2: Worksheets #1, #2 Add Number of Sides of Shapes #2: Worksheets #1, #2</p>

		<p>Skill – Introduce the Symbolism...# + # = Level A Addition Using Gumballs #3: Worksheets #1, #2 Addition Using Beans #3: Worksheets #1, #2 Add Number of Sides of Shapes #3: Worksheets #1, #2</p> <p>Skill – Introduce the words... “plus” and “equals” Level A Addition Using Gumballs #4: Worksheets #1, #2 Addition Using Beans #4: Worksheets #1, #2 Add Number of Sides of Shapes #4: Worksheets #1, #2</p> <p>Skill – Demonstrate Addition Facts ... Making 5 Level A Ways to Make 5: Worksheets #1, #2 Ways to Make 5 : Reverse Order worksheets #1, #2 Make 5: Horizontal & Vertical worksheets #1, #2</p> <p>Skill – Demonstrate Addition Facts ... Making 6 Level A Ways to Make 6: Worksheets #1, #2 Ways to Make 6 : Reverse Order worksheets #1, #2 Make 6: Horizontal & Vertical worksheets #1, #2</p> <p>Skill – Demonstrate Addition Facts ... Making 7 Level A Ways to Make 7: Worksheets #1, #2 Ways to Make 7 : Reverse Order worksheets #1, #2 Make 7: Horizontal & Vertical worksheets #1, #2</p> <p>Skill – Demonstrate Addition Facts ... Making 8 Level A Ways to Make 8: Worksheets #1, #2 Ways to Make 8 : Reverse Order worksheets #1, #2</p>
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Standard 4: The student uses estimation in problem solving and computation.

NUMBER	BENCHMARK	UNDERSTANDING NUMERATION PLUS lessons
MA.A.4.1.1.K	provides and justifies estimates for real-world quantities.	<p>COUNTING Skill – Estimating the Number of Objects and Reasonableness Level A Estimate the Handful Dot Flash Cards</p> <p>Level B Estimating and Counting</p>

Standard 5: The student understands and applies theories related to numbers.

NUMBER	BENCHMARK	UNDERSTANDING NUMERATION PLUS lessons
MA.A.5.1.1.K	classifies and models numbers as even or odd.	

MEASUREMENT

Standard 1: The student measures quantities in the real world and uses the measures to solve problems.

NUMBER	BENCHMARK	UNDERSTANDING NUMERATION PLUS lessons
MA.B.1.1.1.K	uses and describes basic measurement concepts including length, area, weight, time, temperature, and capacity..	<p><u>OPERATIONS</u> Skill – Finding the Area of a Shape Level D Area of a Shaded Region #1 Worksheets #1, #2</p> <p><u>COMPARING AND ORDERING</u> Skill – Reading and Comparing Temperatures Level C Fahrenheit and Celsius Temperatures: Worksheets #1, #2 Compare Temperatures in a Day: Worksheets #1, #2</p> <p><u>COMPARING AND ORDERING</u> Skill – Understand Measurement of Time Level B The Clock: An Introduction #1, #2 Times to the Hour: worksheet #1, #2</p>
MA.B.1.1.2.K	uses standard and nonstandard units in measuring real quantities.	
MA.B.2.1.1.K	uses direct (measured) and indirect (not measured) comparisons to order objects according to some measurable characteristics (area, length, weight, capacity).	<p><u>OPERATIONS</u> Skill – Finding the Area of a Shape Level D Area of a Shaded Region #1 Worksheets #1, #2</p>
MA.B.2.1.2.K	understands the need for a uniform unit of measure to communicate in real-world situations.	

Standard 2: The student estimates measurements in real-world problem situations.

NUMBER	BENCHMARK	UNDERSTANDING NUMERATION PLUS lessons
MA.B.3.1.1.K	uses a variety of strategies, estimates lengths, widths, time intervals, and money and compares them to actual measurements.	<p>COUNTING Skill – Counting Using Money Level B “ Pennies, Nickels, Dimes”: worksheet #1, #2 “ Coins – Count by 10s, 5s, and 1s” : worksheet #1, #2</p> <p>COMPARING AND ORDERING Skill – Understand Measurement of Time Level B The Clock: An Introduction #1, #2 Times to the Hour: worksheet #1, #2</p>

Standard 3: The student selects and uses appropriate units and instruments for measurement to achieve the degree of precision and accuracy required in real-world situations.

NUMBER	BENCHMARK	UNDERSTANDING NUMERATION PLUS lessons
MA.B.4.1.1.K	selects and uses an object to serve as a unit of measure.	

GEOMETRY

Standard 1: The student describes, draws, identifies, and analyzes two- and three-dimensional shapes.

NUMBER	BENCHMARK	UNDERSTANDING NUMERATION PLUS lessons
MA.C.1.1.1.K	understands and describes the characteristics of basic two- and three-dimensional shapes.	COUNTING Skill – Recognize and Count Two-Dimensional Figures Level B/C Counting 2-D Figures #1, #2 Skill – Recognize and Count Solids Level B/C Counting Solids #1 Counting Solids #2

Standard 2: The student visualizes and illustrates ways in which shapes can be combined, subdivided, and changed.

NUMBER	BENCHMARK	UNDERSTANDING NUMERATION PLUS lessons
MA.C.2.1.1.K	understands basic concepts of spatial relationships, symmetry, and reflections.	
MA.C.2.1.2.K	uses objects to perform geometric transformations (slides and turns).	

Standard 3: The student uses coordinate geometry to locate objects in both two and three dimensions and to describe objects algebraically.

NUMBER	BENCHMARK	UNDERSTANDING NUMERATION PLUS lessons
MA.C.3.1.1.K	uses real-life experiences and physical materials to describe, classify, compare, and sort geometric figures, including squares, rectangles, triangles, circles, cubes, rectangular solids, spheres, cylinders, pyramids, and prisms, according to faces, edges, bases, and corners.	<p><u>COUNTING</u> Skill – Recognize and Count Two-Dimensional Figures Level B/C Counting 2-D Figures #1, #2</p> <p>Skill – Recognize and Count Solids Level B/C Counting Solids #1 Counting Solids #2</p>
MA.C.3.1.2.K	plots and identifies positive whole numbers on a number line.	<p><u>COUNTING</u> Skill – Reading and Printing Numerals Level A Introduction : Counting 1 to 10: worksheet #1, #2 Things in a Square #1 Join up to 10 Dots Building a Number Line Building a Vertical Number Line</p> <p><u>COMPARING AND ORDERING</u> Skill – Locate Numbers on a Number Line Level A Find One Missing Number Find Two Missing Numbers</p>

ALGEBRA

Standard 1: The student describes, analyzes, and generalizes a wide variety of patterns, relations, and functions.

NUMBER	BENCHMARK	UNDERSTANDING NUMERATION PLUS lessons
MA..D.1.1.1.K	describes classification schemes and patterns related to physical characteristics and sensory attributes, such as rhythm, sound, shapes, colors, numbers, similar objects, and familiar events	COMPARING AND ORDERING Skill – Introduce “ Greater Than” & “ Less Than” Level A Greater Than Less Than “Greater Than, Less Than” #1 “Greater Than, Less Than, Equal To”
MA..D.1.1.2.K	recognizes, extends, generalizes, and creates a variety of patterns and relationships using symbols and objects..	COUNTING Skill – 1 to 1 Correspondence of # to Objects Level A Keep Track by Marking: Worksheets #1, #2

Standard 2: The student uses expressions, equations, inequalities, graphs, and formulas to represent and interpret situations.

NUMBER	BENCHMARK	UNDERSTANDING NUMERATION PLUS lessons
MA.D.2.1.1.K	understands that geometric symbols can be used to represent unknown quantities in simple number sentences.	
MA.D.2.1.2.K	uses informal methods to solve real-world problems and writes a number sentence.	PROBLEM SOLVING Skill – Number Sentence Oranges Bill’s Ball

DATA ANALYSIS

Standard 1: The student understands and uses the tools of data analysis for managing information.

NUMBER	BENCHMARK	UNDERSTANDING NUMERATION PLUS lessons
MA.E.1.1.1.K MA.E.1.1.3.K	plays solutions to problems by generating, collecting, organizing, and analyzing data using bar and picture graphs, and charts. analyzes real-world data and makes generalizations.	OPERATIONS Skill – Given Graphs...Perform Operations Level D Operations with Tally Charts: Worksheets #1, #2 Operations with Pictographs: Worksheets #1, #2 Operations with Bar Graphs: Worksheets #1, #2
MA.E.1.1.2.K	displays data in a simple model to use concepts of range, median, and mode.	

Standard 2: The student identifies patterns and makes predictions from an orderly display of data using concepts of probability.

NUMBER	BENCHMARK	UNDERSTANDING NUMERATION PLUS lessons
MA.E.2.1.1.K MA.E.2.1.2.K	understands basic concepts of chance and probability. predicts which simple event is more likely, equally likely, or less likely to occur.	Understanding Math PLUS Understanding Probability Topic 1. Introduction to Probability The Language of Chance Impossible to Certain Activity 1 Activity 2

Standard 3: The student uses statistical methods to make inferences and valid arguments about real-world situations.

NUMBER	BENCHMARK	UNDERSTANDING NUMERATION PLUS lessons
MA.E.3.1.1.K MA.E.3.1.2.K	participates in a class survey and constructs, reads, and interprets bar and picture graphs. decides what information is appropriate and how data can be collected, displayed, and interpreted to answer relevant questions.	OPERATIONS Skill – Given Graphs...Perform Operations Level D Operations with Tally Charts: Worksheets #1, #2 Operations with Pictographs: Worksheets #1, #2 Operations with Bar Graphs: Worksheets #1, #2