

<b>TES Math Map</b>	Teacher(s): Cooper, MacDonald, Taylor, Phegley, Lackey	Creation Date:
	Grade Level: Kindergarten	Revision Date: 2009/2010

Math Unit	Number Sense	Sorting and Patterns	Shapes	Graphing and Comparing	Addition and Subtraction	Money	Measurement
Timeframe and Month	<b>August/September Ongoing</b>	<b>August/September 4-6 weeks</b>	<b>September 2 weeks</b>	<b>October 3-5 weeks</b>	<b>November On-going</b>	<b>February 3 weeks</b>	<b>April/May 4 weeks</b>
Inquiry Questions	<ul style="list-style-type: none"> <li>Why do we count things?</li> <li>Is there a wrong way to count? Why?</li> <li>How do you know when you have more or less?</li> <li>What does it mean to be second and how is it different from 2?</li> <li>What do numbers tell us?</li> <li>How can you tell how many?</li> <li>How are these groups different?</li> <li>Is there a biggest number?</li> </ul>	<ul style="list-style-type: none"> <li>How many ways can a set of objects be broken apart and put back together?</li> <li>Where are patterns found?</li> <li>How do you know there is a pattern?</li> <li>How can you explain a pattern?</li> </ul>	<ul style="list-style-type: none"> <li>What is a shape?</li> <li>How are shapes like each other? How are they different?</li> <li>Where do you see shapes in the environment?</li> </ul>	<ul style="list-style-type: none"> <li>What can you learn about yourself by looking at data from your whole class?</li> <li>How could you share data without using a data display?</li> <li>What are the ways data can be displayed?</li> </ul>	<ul style="list-style-type: none"> <li>What happens when two quantities are combined?</li> <li>What happens with a set of objects is separated into different sets?</li> </ul>	<ul style="list-style-type: none"> <li>How can you tell the difference between each coin?</li> <li>What is the value of each coin and how do they relate to each other?</li> </ul>	<ul style="list-style-type: none"> <li>How can you tell when one thing is bigger than the other?</li> <li>How is height different from length?</li> <li>How is weight different from capacity?</li> <li>What are measuring tools and how are they used?</li> </ul>
New Concepts	<ul style="list-style-type: none"> <li>Counting</li> <li>Comparing</li> <li>Describing sets</li> <li>Developing a sense of quantity</li> <li>Counting one to one</li> </ul>	<ul style="list-style-type: none"> <li>Sorts, classifies, describes, and orders collections of objects.</li> <li>Recognize, construct, and extend patterns</li> </ul>	<ul style="list-style-type: none"> <li>What is a shape?</li> </ul>	<ul style="list-style-type: none"> <li>Creating and interpreting a graph</li> <li>Comparing data on a graph</li> <li>More than/less than</li> </ul>	<ul style="list-style-type: none"> <li>Adding</li> <li>Subtracting</li> <li>Reading equations</li> <li>One more/one less</li> </ul>	<ul style="list-style-type: none"> <li>Names of coins</li> <li>Value of coins</li> <li>Counting money</li> <li>Exchanging money</li> </ul>	<ul style="list-style-type: none"> <li>How do you measure something?</li> <li>Standard and nonstandard units of measurement</li> <li>Heavier vs. lighter</li> </ul>
Spiraling Foci							
Lessons, Activities, Tasks	<ul style="list-style-type: none"> <li>Lakeshore Counting with ants</li> <li>Lakeshore Peanuts in the Bag</li> <li>Lakeshore Elephant Links</li> <li>“Navigations: Navigating Through Number and Operations” page 16 “Choose a</li> </ul>	<ul style="list-style-type: none"> <li>Lakeshore Sorting</li> <li>Lakeshore Patterns</li> <li>“Navigations: Navigating Through Algebra” page 10 “Clown Line Up”</li> <li>Page 16 “Footprints”</li> <li>“Investigations: Pattern Trains and</li> </ul>	<ul style="list-style-type: none"> <li>Lakeshore Shapes</li> <li>Shape Bingo</li> <li>“Navigations: Navigating Through Geometry” P. 14 “Shapes From Shapes.”</li> <li>P. 17 “Alike and Different”</li> <li>“Investigations: Making Shapes and</li> </ul>	<ul style="list-style-type: none"> <li>Lakeshore Graphing</li> <li>Question of the Day</li> <li>Graphing Weather</li> <li>Graph Fall Leaves</li> <li>“Navigations: Navigating Through Data Analysis and Probability” P. 25 “All About Shoes”</li> <li>P. 27 “Chain It”</li> <li>P. 44” Back and</li> </ul>	<ul style="list-style-type: none"> <li>Lakeshore Addition</li> <li>“Navigations: Navigating Through Problem Solving and Reasoning” p. 10 “Bears in the House”</li> <li>“Marilyn Burns” p. 14 “Cats Add up”</li> <li>p. 16 “Fat Frogs on a Skinny Log”</li> <li>p. 28 “Mouse Count”</li> </ul>	<ul style="list-style-type: none"> <li>Piggy Bank Game</li> <li>Race to the Bank</li> <li>Money Twister</li> <li>Money Song by Dr. Jean</li> <li>Calendar Activities</li> <li>Coin Books</li> <li>“Bennies Pennies”</li> <li>Scoops of Coins</li> <li>Money Flip Book</li> </ul>	<ul style="list-style-type: none"> <li>Lakeshore measurement</li> <li>“Navigations: Navigating Through Measurement” p. 14 “Body Balance”</li> <li>p. 16 “Scavenger Hunt”</li> <li>p. 18 “String</li> </ul>

	<ul style="list-style-type: none"> <li>Number”</li> <li>“Navigations” p. 21 “Ducks in a Line”</li> <li>“Navigations” p. 46 “Frames”</li> <li>“Investigations: Collecting, Counting, and Measuring” Investigation 1 “Counting Books” “Grab and Count”</li> <li>“The Counting Jar”</li> <li>Investigation 2</li> <li>“Inventory Bags”</li> <li>Investigation 4</li> <li>“Collect 10 Together”</li> <li>“How Many Letters in Your Name?”</li> <li>“Marilyn Burns” p. 18 “Feast for 10”</li> <li>“Marilyn Burns” p. 20 “From 1 to 100”</li> <li>“Marilyn Burns” p. 22 “The Icky Bug Counting Book”</li> <li>“Marilyn Burns” p. 30 “98, 99, 100, Ready or Not Here I come.”</li> <li>“Marilyn Burns” p. 32 “One Monday Morning”</li> <li>“Marilyn Burns” p. 48 “10 Black Dots”</li> <li>Kathy Richardson chapter 1 in “Developing Number Concepts” Teacher led 1:1-1:20; Independent activities 1:21-1:41</li> </ul>	<ul style="list-style-type: none"> <li>Hopscotch Paths”</li> <li>Investigation 1 p. 16 “What’s Missing”</li> <li>Investigation 2</li> <li>Page 32 “What Comes Next”</li> <li>P. 34 “Pattern Block Snakes”</li> <li>Investigation 3</li> <li>P. 58 “Tile Pass”</li> <li>Investigation 4</li> <li>P. 74 “Color Tile Borders”</li> <li>P. 76 “Twelve Chips”</li> <li>“Kathy Richardson” P. 90 “Rhythmic Patterns”</li> <li>P. 93 “People Patterns”</li> <li>P. 94 “Patterns in the Environment”</li> <li>“Teacher Made” “Sort Buttons”</li> <li>“Sort Nature”</li> </ul>	<ul style="list-style-type: none"> <li>Building Blocks</li> <li>Investigation 1” P. 4 “Focus Time, Looking at 2-D shapes”</li> <li>P. 12 “Make a Book of Shapes”</li> <li>Investigation 2</li> <li>P. 14 “Pattern Block Pictures”</li> <li>P. 17 “Shape Mural”</li> <li>Marilyn Burns-p. 42-43 “The Shape of Things”</li> <li>P. 60-61 “When a line Bends, a Shape Begins”</li> </ul>	<ul style="list-style-type: none"> <li>Forth”</li> <li>Class Attribute Graphs</li> <li>Open House Graph</li> <li>Graph Apples</li> <li>Graphing Gummy Bears</li> </ul>	<ul style="list-style-type: none"> <li>p. 34 “One More Bunny”</li> <li>p. 48 “10 Black Dots”</li> <li>P. 52 “10 Red Apples”</li> <li>P. 54 “10 Sly Piranhas”</li> <li>Kathy Richardson” Book 2</li> <li>P. 16 “Acting Out Addition and Subtraction Stories”</li> <li>P. 26 “About the Plus and minus signs”</li> <li>Felt Stories</li> <li>Investigation 3 p. 65 “Counters in Cup”</li> </ul>	<ul style="list-style-type: none"> <li>Coin toss/heads or tails</li> </ul>	<ul style="list-style-type: none"> <li>Lengths</li> <li>p. 21 “Fill it Up”</li> <li>p. 32 “Giant Steps/Baby Steps”</li> <li>p. 37 “Snake Imprints</li> <li>nonstandard measuring items in the classroom</li> <li>“Investigations: Collecting, Counting and Measuring”</li> <li>Investigation 3 p.36 “Comparing Towers”</li> <li>p. 38 “Measurement Towers”</li> <li>Investigation 4 p. 52 “Counting and Comparing”</li> <li>p. 60 “Comparing Names”</li> <li>“Rainbow Ruler”</li> <li>Feet Findings</li> <li>Jump, Frog, Jump</li> <li>PLT “Measuring Trees”</li> <li>Jack and the Beanstalk</li> <li>Inch by Inch</li> <li>A Tale of Length</li> </ul>
<p><b>Standards</b> <b>1. Number Sense, Properties, and Operations</b></p>	<p><b>Area 1.1: Whole Numbers</b> 1.1.1: Uses objects and pictures to represent whole numbers from 0-20 1.1.2: Count, recognize, represent, name, write, and order a number of objects (up to 20). 1.1.3: Uses objects to demonstrate the</p>		<ul style="list-style-type: none"> <li></li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>	<p>1.2.1: Draws pictures, uses coins, or uses manipulatives to form sets of up to ten objects. 1.2.2: Adds and subtracts whole numbers by combining and separating objects. 1.2.3: Identify numbers one more or one less than a given number up to 10.</p>	<ul style="list-style-type: none"> <li>Names pennies, nickels, dimes, quarters, and dollars.</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>

	<p>meanings of equal to, less than, greater than, fewest and most up two sets of 20.</p> <p>1.1.4: Uses objects to demonstrate parts and wholes.</p> <p>1.1.5: Understands the concept of zero e.g. can locate zero on a number line, demonstrates understanding that zero is used to mean "not any", and uses zero as a place holder (10, 20, 30)</p> <p>1.1.6: Counts from 1-50.</p> <p>1.1.7: Uses one to one correspondence to count.</p> <p>1.1.8: Identify small groups of objects—fewer than five without counting.</p> <p>1.1.9: Estimate quantities less than 20.</p>				<p>1.2.4: Determine if more than or less than is needed to change one quantity to another.</p> <ul style="list-style-type: none"> <li>•</li> </ul>		
<p><b>2. Patterns, Functions, and Algebraic Structures</b></p>		<p><b>Area 2.1: Patterns can repeat</b></p> <p>2.1.1: Recognize, constructs and extends patterns.</p> <p>2.1.2: Extend a repeating three-element pattern using a variety of materials such as numbers, letters, shapes, and manipulatives</p> <p><b>Area 2.2: Sorting, Classifying and Describing</b></p> <p>2.2.1: Sorts, classifies, describes and</p>	<ul style="list-style-type: none"> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>

		<p>orders collections of objects by more than one attribute in a variety of ways</p> <p>2.2.2: Generalize the counting sequence pattern from counting all to knowing "one more" and "one less"</p> <p>2.2.3: Communicate the relationship between composing and decomposing numbers</p> <ul style="list-style-type: none"> <li>•</li> </ul>					
<p><b>3. Data, Analysis, Statistics, and Probability</b></p>	<ul style="list-style-type: none"> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>	<p><b>Area 3.1: Charts and Graphs</b></p> <p>3.1.1: Reads, creates, and discusses simple picture and real object graphs</p> <p>3.1.2: Describe bar graphs to answer questions such as more, less, or equal and simple trends.</p> <p><b>Area 3.2: Data</b></p> <p>3.2.1: Gathers data relating to familiar experiences (i.e. Classroom) by counting and tallying.</p> <p>3.2.2: Identify and compare own data to group's data.</p> <ul style="list-style-type: none"> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>	<p>3.1.1: Reads, creates, and discusses simple picture and real object graphs</p> <ul style="list-style-type: none"> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>
<p><b>4. Shape, Dimension, and Geometric Relationships</b></p>	<ul style="list-style-type: none"> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>	<p>4.1.1: Matches a pattern block (or other geometric manipulative) to its congruent shape on paper</p> <ul style="list-style-type: none"> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>	<p>4.3.1: Measure the lengths of the sides of triangles, squares, and rectangles using non-standard units</p> <p>4.3.2: Estimates and measures length in non-standard units.</p>

							4.3.3: Estimates the measurement of weight by heavier and lighter. 4.3.4: Compares and orders objects according to measurable attributes of length and weight
<b>Process Skills</b> 1. Critical Thinking and Reasoning 2. Collaboration 3. Invention 4. Self-Direction Information Literacy	<ol style="list-style-type: none"> <li>1. K.R. estimating and reflecting on Line Puzzles</li> <li>2. How Many Letters in Your Name</li> <li>3. 10 Black Dots by M. Burns</li> <li>4. K.R.Counting Boards and Creation Station</li> </ol>	<ol style="list-style-type: none"> <li>1. Sorting by various attributes and describing the sort.</li> <li>2. Footprints from Navigations</li> <li>3. Pattern Snakes from Investigations</li> <li>4. Button sorting and patterning</li> </ol>	<ol style="list-style-type: none"> <li>1. Shape Riddles</li> <li>2. Shape of Things Book/mural</li> <li>3. Pattern Block Pictures</li> <li>4. Lakeshore Shapes</li> </ol>	<ol style="list-style-type: none"> <li>1. Question of the Day</li> <li>2. Class Attribute Graph</li> <li>3.</li> <li>4. Graphing Gummy Bears</li> </ol>	<ol style="list-style-type: none"> <li>1. Counters in a Cup</li> <li>2. felt stories</li> <li>3. felt stories</li> <li>4. Bears in the House/Park</li> </ol>	<ol style="list-style-type: none"> <li>1. Race to the Bank game</li> <li>3. Piggy Bank game</li> </ol>	<ol style="list-style-type: none"> <li>1. Nonstandard measurement of items in the classroom</li> <li>2. Measure the classroom in groups</li> <li>3.</li> <li>4. Feet Findings</li> </ol>
<b>Resources</b>	Lakeshore Centers Navigations Investigations Marilyn Burns Kathy Richardson	Kathy Richardson Navigations Investigations Lakeshore Centers√	Navigations Investigations Lakeshore Centers Marilyn Burns	Navigations Investigations Lakeshore Centers	Navigations Lakeshore Centers Marilyn Burns Shoebox Centers Kathy Richardson	Teacher made materials	Lakeshore Centers Navigations Investigations Teacher made materials
<b>Assessments</b>	Kindergarten Common Assessment Kathy Richardson Assessment	Kindergarten Common Assessment Kathy Richardson Assessment	Kindergarten Common Assessment	Kindergarten Common Assessment	Kindergarten Common Assessment Kathy Richardson Assessment	Kindergarten Common Assessment	Kindergarten Common Assessment
<b>Vocabulary</b>	Number Numeral Quantity Set Count Represent Group Compare Identify Estimate Predict Skip Counting	Repeats Left Right Extend ABAB AABB ABCABC Attribute Sort	Square Circle Triangle Rectangle Oval Diamond Shape Hexagon Trapezoid Side Corner	Most Least Equal Graph Tally Data	Pus Minus Equals Equation Add Subtract Number sentence Combine Difference Sets Counting On	Penny Nickel Dime Quarter Dollar Worth Value Coin Bill Cents Probability Most/least likely	Inch Ruler Centimeter Standard Nonstandard Measure Length Weight Capacity Width Height Scale