Kindergarten Math Map Grade: PK to 5
Course: Elementary Math South Seneca Elementary School
Developed by: *Jennifer Gigliotti, Jyl Olschewske, Marie Roloson, Stacey Clark*
From: September 2007 to June 2008 (10 months)
Map Status: In Progress - Shared

Mapping Category	September 2008	October 2008
Theme	Colors Shapes Matching One - to - One Same and Different Position and Sorting New York State Standards: K.G.5, 2; K.S.3	Sorting and Classifying Graphing Patterns New York State Standards: K.S.5, 4, 2, 1; K.A.1, 2
Content	Red, Blue, Yellow, Green, Orange, Purple, Brown, Black, White, Pink, gray Circle, Square, Triangle, Rectangle, Oval, Diamond Learn and Use Position Words Sort objects into groups Calendar Problem Solving • Compare and discuss ideas for problem solving to justify their thinking • Use pictures to model the action in problems • Explain to others how the problem was solved • Understand that mathematical problems can be true or false (i.e. 2 + 2 = 4 or 3 + 1 = 5) Real World Connections Communication • Understand their thought process with teacher guidance (model) • Listen to solutions shared by others • Formulate questions with teacher guidance(modeling)	Same and Different Sorting by One Attribute Sorting Same Set in Different Ways (Color, shape, size) Sorting by More than One Attribute Use Logical Reasoning ~ Problem Solving Strategy Problem Solving Applications Problem Solving • Compare and discuss ideas for problem solving to justify their thinking • Use pictures to model the action in problems • Explain to others how the problem was solved • Understand that mathematical problems can be true or false (i.e. 2 + 2 = 4 or 3 + 1 = 5) Real World Connections Communication • Understand their thought process with teacher guidance (model) • Listen to solutions shared by others • Formulate questions with teacher

		guidance(modeling)
Skills	Recognize/Identify colors and shapes. Color shape pictures, find and draw shapes Follow directions using given colors Listen to story "Inside Messy Monkey's Room" and then find objects Vocabulary: inside/in, outside/out, over/above, under below, on/on top of, top, middle, bottom, left, right, between, same, alike, different, sort, does not belong, sorting rule Find pictures that are the same and different Number order Tens and ones	Distinguish between same and different pictures Sort objects by color Sort by shape Sort by size Listen to Scaredy Skunk's Dance Read different graphs - real, picture and bar Match objects one -to - one Find many, more and fewer objects Use counters on graphs Survey classmates as to what toy, fruit etc they like and graph results Make "A- B", "A,B,C" "A-A-B" patterns Vocabulary: as many, equal, more, fewer, graph, real graph, picture graph, bar graph, survey, pattern, repeat, true, false
Assessment	Teacher observation Worksheets Individual testing of colors and shapes Games (Hokey Pokey, Color/ Shape Bingo) Songs (Make a way for the Parade of Colors)	Teacher observation Worksheets Individual Testing Sorting and patterning Mini-marshmallows Sorting and patterning Skittles counting correct number of candy corn in pumpkins Making a Favorite apple Classroom Graph Making a Classroom Hair Color Graph Making a Transportation Graph
Resources	Color and Shape Books for work papers Ten Black Dots by Donald Crews	Scott Forsman/Addison Wesley Mathematics Workbook pages 11-44 Classroom Graphs for Apples,

	Tops and Bottoms by Janet Stevens My First Board Book by Angela Wilkes I Spy Fantasy by Walter Wick and Jean Marzollo Scott Forsman/Addison Wesley Mathematics Workbook pages Readiness Pages through page 10	Transportation, and Hair Color Maisy at the Fair by Lucy Cousins If You Give a Mouse a Cookie by Laura Joffe Numeroff Predictable sequence books such as: Goldilocks and the Three Bears

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Mapping Category	November 2008	December 2008
Theme	Numbers Through 5 New York State Standards: K.N.1, 2, 3, 4, 8, 9, 7, 10, 11, 6, K.S.2	Numbers Through 10 New York State Standards: K.N. 2, 4, 7, 8, 1, 9, 10, 6, 5, 11, K.S. 5
Content	`Counting 1, 2, and 3 Reading and Writing 1, 2, 3 Counting 4 and 5 Reading and Writing 4 and 5 Reading and Writing 0 Comparing Numbers through 5 Ordering Numbers 0 -5 Ordinal Numbers through Fifth Problem Solving • Compare and discuss ideas for problem solving to justify their thinking • Use pictures to model the action in problems • Explain to others how the problem was solved • Understand that mathematical problems can be true or false (i.e. 2 + 2 = 4 or 3 + 1 = 5) Real World Connections Communication • Understand their thought process with teacher guidance (model) • Listen to solutions shared by others • Formulate questions with teacher guidance(modeling)	Ollie Octopus Lost a Shoe Counting 6, 7, 8, 9 using the 5 frame finding and counting objects of 6 - 10 Writing number 6 - 10 Counting to 10 and using the 10 frame Comparing Numbers 1 through 10 One to one correspondence Finding more and fewer than Ordering Numbers 0 - 10 Sequence number in correct order and completing a dot - dot Ordinal Number through tenth Identify a pattern and how it grows Problem solving applications Problem Solving • Compare and discuss ideas for problem solving to justify their thinking • Use pictures to model the action in problems • Explain to others how the problem was solved • Understand that mathematical problems can be true or false (i.e. 2 + 2 = 4 or 3 + 1 = 5) Real World Connections Communication • Understand their thought process with teacher guidance (model)

		• Listen to solutions shared by others • Formulate questions with teacher guidance(modeling)
Skills	Use objects to represent and count the quantities 1,2, 3, 4 and 5 Recognize and write the numerals that describe the quantities 1,2,3, 4,5 Use one-to-one correspondence and counting to compare groups and determine which has more, fewer or the same Use objects to order numbers from 0 - 5 in sequence Solve problems by making and reading a real graph and a picture graph Use the words first, second, third, fourth and fifth to identify ordinal positions Listen to story - "I Went to the Park" - find the number of pictures in the story Vocabulary: one, two, three, count, number, four, five, zero, more, less, fewer, same, equal, order, most, fewest, first, second, third, fourth, fifth	Using a number line making a paper chain with 10 links following a pattern to make the chain calendar activities - pattern - elf and tree count down to Christmas counting backwards from 10 advent calendar - finding numbers 1 - 22 Cookie shape book - using shapes Christmas Counting Book - numbers 1-10 and objects 1 - 19 Worksheets for patterning, number recognition and sets Vocabulary: six, seven, eight, one more, one fewer, forward, nine, ten, backward, greater, less, more than, fewer than, before, after, sixth, seventh, eighth, ninth, tenth, growing pattern
Assessment	Informal Conferences and check-ins with students during work and corrections time Chapter 3 Test - Scott Foresman - Addison Wesley Ten week individual testing Teacher observation	Informal Conferences and check - ins with students during work and corrections time Chapter 4 Test - Scott Foresman- Addison Wesley Teacher observation Calendar activities
Resources	Classroom explorations Worksheets - color by number papers Scott Foresman- Addison Wesley workbook pages 51 - 74 Songs - One little two little three little Indians,	Classroom explorations Worksheets - color by number, patterning, listening for directions, counting number of sets, graphing Scott Foresman - Addison Wesley workbook pages 77 -100 Songs - Calendar Activities Ten Black Dots by Donald Crews

	5 Little Monkeys jumping on the bed, Five Green and Speckled Frogs Five Little Bugs p. 63 B Five in the Bed p. 71 B	One Two Buckle My Shoe p. 85 B Ten, Nine, Eight by Molly Bang

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Map Status: In Progress - Shared

Mapping Category	January 2009	February 2009
Theme	Chapter 5 ~ Numbers Through 31 New York State Standards: K.N. 4	Chapter 6 ~ Measurement New York State Standards: K.G. 2, K.M. 1, 2, K.S. 5
Content	Read Story "One Fine Day" Counting with counters from 11 - 20 Writing numbers 11 - 20 Skipping Counting by 2's and 5's Reading and Writing Numbers through 31 Estimation Comparing Numbers (Greater - Lesser) Writing Numbers on a calendar Find missing numbers on a calendar Problem Solving • Compare and discuss ideas for problem solving to justify their thinking • Use pictures to model the action in problems • Explain to others how the problem was solved • Understand that mathematical problems can be true or false (i.e. 2 + 2 = 4 or 3 + 1 = 5) Real World Connections Communication • Understand their thought process with teacher guidance (model) • Listen to solutions shared by others • Formulate questions with teacher guidance(modeling)	Read Story "The Empress and the Tallest Tree" Measure how long things are How much they weigh How much they can hold Vocabulary Words: Larger, smaller, small, medium, large, big, bigger, biggest, smallest, largest, longer than, taller than, shorter than, as long as, as short as, as tall as, shortest, longest, tallest, measure, estimate and check, holds more, holds less, most, least, heavier, lighter, about the same, balance, weight, warmer, cooler, hotter, colder, thermometer, weighs more, weighs less, full, empty Math stories to reinforce concepts: ***The Fattest, Tallest, Biggest Snowman Ever ~ Inch By Inch*** Compare and Order by Size, Length, Capacity and Weight Estimate and Measure Length, Capacity and Weight Find correct thermometer to go with picture Problem Solving • Compare and discuss ideas for problem solving to justify their thinking • Use pictures to model the action in problems • Explain to others how the problem was solved • Understand that mathematical problems can be true or false (i.e. 2 + 2 = 4 or 3 + 1 = 5) Real World Connections Communication • Understand their thought process with teacher guidance (model) • Listen to solutions shared by others

		• Formulate questions with teacher guidance(modeling)
Skills	Counting numbers using a ten frame Reading and Writing numbers 11 - 31 Counting sets 11- 31 Skip counting by 2's and 5's using a number line Estimating sets Comparing the greater and less than numbers Predictions and Probability with a spinner and colored circle Daily Calendar Activities Vocabulary: eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, twenty, skip counting, about, greater, less, before, after, between, equally likely, more/most likely, less/least likely	Find larger and smaller object Find longer /shorter object measure objects using blocks and paper clips compare two lengths by representing the lengths with paper or string estimate how many blocks needed to cover space compare objects that hold more/less estimate and measure how many blocks fit in containers compare heavier/lighter objects use a balance to weigh objects in cubes
Assessment	Teacher Observations Informal Conferences and check -ins with students during work and corrections time Chapter 5 Test - Scott Foresman - Addison Wesley Twenty week individual testing	Teacher Observations Informal Conferences and check-ins with students during work and correction time Chapter 6 Test - Scott Foresman - Addison Wesley
Resources	Classroom Explorations Worksheets - color by number , dot to dot (mittens, etc) Scott Foresman Workbook pages 103 - 130 Songs with numbers - 2, 4, 6, 8 who do we appreciate I Have a Dog with Sixteen Legs p. 109 B Calendar Rhyme p. 123 B	Classroom Explorations Worksheets - color by number , dot to dot , graphing Scott Foresman Workbook pages 133 - 158 If I Were a ... p. 135 B Chrysanthemum by Kevin Henkes Measuring Penny by Loreen Leedy Strega Nona by Tomie DePaola

	William and the Night Train by Mij Kelly	Weigh, Weigh What Can We Weigh p. 151 B The Lot at the End of My Block by Kevin Lewis

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From: September 2007 to June 2008 (10 months)

Map Status: In Progress - Shared

Mapping Category	March 2009	April 2009
Theme	Chapter 7 ~ Time and Money New York State Standards: K.M. 3, K.S. 5; K.N. 1, 3	Chapter 8 ~ Geometry and Fractions Chapter 9 ~ Readiness for Addition and Subtraction New York State Standards: K.G. 4, 1, 5, 3; K.S. 5 K.N. 2, 3, 9, 6, 12, 13, 8; K.S. 3,
Content	Read Story "Dalmatian Puppies Review how to read a calendar Learn how to tell time Learn how to count money Math stories to reinforce concepts: ***Just a Minute! Pigs Will Be Pigs: Fun with Math and Money*** Problem Solving • Compare and discuss ideas for problem solving to justify their thinking • Use pictures to model the action in problems • Explain to others how the problem was solved • Understand that mathematical problems can be true or false (i.e. 2 + 2 = 4 or 3 + 1 = 5) Real World Connections Communication • Understand their thought process with teacher guidance (model) • Listen to solutions shared by others • Formulate questions with teacher guidance(modeling)	Chapter 8 ~ Read Story "Round Is A Pancake" Identify Shapes that are symmetrical Identify equal parts of a whole Identify halves and fourths of a whole Solve problems involving equal shares Math Stories to reinforce concepts: **The Greedy Triangle, So Many Circles, So Many Squares** Chapter 9 ~ Read Story "Miss Bessy's Pies" Uses counter to show 4 & 5 in two parts Show 6 & 7 in two parts Show 8 & 9 in two parts and in different ways Use a ten frame to show 10 in different ways Solve problems by making an organized list showing two parts of 5 to 10 Find the number that is 1 more or 2 more than a given number Find the number that is 1 fewer or 2 fewer that a given number Math Stories to reinforce concepts: **More Than One, Ten Flashing Fireflies** Problem Solving

		• Compare and discuss ideas for problem solving to justify their thinking • Use pictures to model the action in problems • Explain to others how the problem was solved • Understand that mathematical problems can be true or false (i.e. 2 + 2 = 4 or 3 + 1 = 5) Real World Connections Communication • Understand their thought process with teacher guidance (model) • Listen to solutions shared by others • Formulate questions with teacher guidance(modeling)
Skills	Children will put days of the week in correct order Children will find the correct day for yesterday, today and tomorrow Children will recognize the seasons Children will find their birth month Children will read a calendar finding where the month and the days are located Children will write the dates on a calendar Children will find a picture of what happens next Children will order the events from first to last Children will show the time of day by drawing a sun or moon Children will match a picture showing what happens in the morning , afternoon and evening Children will write the time shown on a clock (all o'clocks) Children will draw the hour hand to show the time Children will write the hour on the digital clock to match the hour shown on the	Chapter 8 Children will find objects that match certain shapes. Children will identify the solid figure and find a matching everyday object. Children will find the solid figure that rolls, stacks and slides. Children will find the matching flat surface of the solid figure. Children will identify rectangles, squares, circles and triangles. Children will slide, flip and turn a pattern block and see how it lands. Children will explore vertical and horizontal orientation of objects. Children will use pattern blocks to cover a shape. Children will find the shape that shows matching parts. Children will divide a picture to show matching parts. Children will find equal parts & shares. (2 equal shares, 4 equal shares) Children will find pictures shaped like a triangle and square. Vocabulary Words: circle, rectangle, square, triangle, sphere, cylinder, cube, cone, roll, stack, slide, flat surface, flip, turn, matching parts, whole, equal parts, halves, fourths

	analog clock Children will find the event that takes more time/ less time Children will count the pennies and record and /or circle the correct value Children will count the value in each group of nickels and pennies and record and/or circle the correct value Children will count the pennies, nickels and dimes and record and/or circle the correct value Children will show the value of each priced item in different ways Children will identify the coins and bills and matching them front and back Children will find the item that costs more and less Vocabulary Words: months of the year, days of the week, yesterday, today, tomorrow, month, year, season, date, day, calendar, first, next, last, before, after, night, morning, afternoon, evening, clock, hands, o'clock, face, digital clock, more time, less time, penny, cent, cent sign, nickel, dime, quarter, dollar, dollar sign	Chapter 9 Children will make 4 & 5 in three different ways by using red /yellow counters Children will make 6, 7, 8, 9 in four different ways (2 & 4, 3 & 3) Children will make 10 using ten frames Children will count and record number of red/ yellow balloons and make a pattern (5, 4, 3, 2, 1, 0) Children will count and record number of red and blue crayons and make a pattern (0, 1, 2, 3, 4, 5) Children will add 1 more object then record number Children will add 2 more objects then record number. Children will "x" an object and count how many are left (one fewer) Children will "X" 2 objects and count how many are left (two fewer) Children will count and compare - then record Vocabulary Words: whole, part, 1 more, 2 more, 1 fewer, 2 fewer
Assessment	Teacher Observations Informal Conferences and check-ins with students during work and correction time Chapter 7 Test - Scott Foresman - Addison Wesley	Teacher Observations Informal Conferences and check-ins with students during work and correction time Chapter 8 & 9 Test - Scott Foresman - Addison Wesley
Resources	Classroom Explorations Worksheets - time and money play money Judy Clocks	Chapter 8 Classroom Explorations Pattern Block Cards and Pattern blocks worksheets

	Song "I am a paper clock I am" Scott Foresman Workbook pages 159 - 194 The Paper Boy by Dave Pilkey The Penny p. 179 A A Nickel p. 181 A Small But Mighty p. 183 B Dime p. 183 A The Quarter p. 187 A Cloudy with a Chance of Meatballs by Judy Barrett Bennies Pennies (from Reading Series)	Scott Forsman Workbook pages 195 - 222 Color Farm by Lois Ehlert Shapes, Shapes, Shapes by Tanna Hoban Eating Fractions by Bruce Mc Millen The Doorbell Rang by Pat Hutchins Chapter 9 Classroom Explorations counters work mats worksheets Scott Foresman Workbook pages 223 - 242 Ten Friends by Bruce Goldstone One Less Fish by Kim Michelle Toft Where Once There Was a Wood by Denise Fleming

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Developed by: *Jennifer Gigliotti, Jyl Olschewske, Marie Roloson, Stacey Clark*

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Mapping Category	May 2009	June 2009
Theme	Chapter 10 ~ Understanding Addition Chapter 11 ~ Understanding Subtraction New York State Standards: K.N. 12, 8, 9, 13, 2; K.S. 3 K.N. 9, 12, 13, 8, 10; K.S. 3; K.PS. 2, 6, 7, 10: K.CM. 1, 3, 4	Chapter 12 ~Counting and Number Patterns to 100 New York State Standards: K.N. 1, 2, 9, 8; K.A. 2
Content	Read Story "Allie Gator's Elevator" Act out number stories that involve joining two groups. Interpret illustrations that show joining groups and write the corresponding numbers. Solve problems by drawing pictures about joining two groups. Use the plus sign to represent joining groups when recording addition. Identify and use the equals sign, add and write the sum. Write and solve addition sentences to represent joining situations. Add pennies, write addition sentences, and use the cents sign. Reading stories that reinforce concepts" **"Addition Annie", "Domino Addition"** Chapter 11 ~ Read Story "The Mystery of the Missing Meatballs" Use counter for each object in picture then remove counters for only the group that is leaving. Children will write how many tiles they see then "X" out the tiles that will be taken away and count the remainder that is left. Children compare groups - match one object to another	Read Story ~ "The Space Guy with 100 eyes" Children will count groups of 10 and write the numbers. Children will count to 100 on the hundred chart and write the missing numbers. Children will count the groups of 10 beads and then count on the remaining beads - then record. Children will count by 2's on the hundred chart and use a yellow crayon to color the numbers. Children will count by 5's and write the 5's. Children will count by 2's, 5's and 10's then record. Children will look for a pattern, identify the pattern and then continue the pattern by writing in the missing number. Reading Storiesthat reinforce concepts: **From One to One Hundred, The Wolf's Chicken Stew".** Problem Solving • Compare and discuss ideas for problem solving to justify their thinking • Use pictures to model the action in problems • Explain to others how the problem was solved

	and then circle the group with more or less. Children write how many toys in all then "X" the objects to be taken away and count the remainder. Children continue to count and "X" to take away but are writing the subtraction and equal sign to find the difference. Children are writing subtraction sentences on their own. Children will write a subtraction sentence subtracting pennies Children will listen to the problem from the teacher's guide and decide whether to add or subtract. Problem Solving • Compare and discuss ideas for problem solving to justify their thinking • Use pictures to model the action in problems • Explain to others how the problem was solved • Understand that mathematical problems can be true or false (i.e. 2 + 2 = 4 or 3 + 1 = 5) Real World Connections Communication • Understand their thought process with teacher guidance (model) • Listen to solutions shared by others • Formulate questions with teacher guidance(modeling)	• Understand that mathematical problems can be true or false (i.e. 2 + 2 = 4 or 3 + 1 = 5) Real World Connections Communication • Understand their thought process with teacher guidance (model) • Listen to solutions shared by others • Formulate questions with teacher guidance(modeling)
Skills	Each child will learn about joining groups of things together. Each child will learn how to write addition sentences. Each child will glue cutout pictures to show a story and record a sentence that tells their story. Each child will listen to a story and follow the directions. Each child will write the number of objects in a group and record how many objects they see. Each child will listen to a problem that is read to them and draw pictures to solve the problem. Each child will write how many objects they see in each group and circle the groups to join them Vocabulary Words: number story, join, in all, altogether, add, equal sign, addition sentence, plus	Comparison Subtract Pennies Removing or xing out objects Writing number sentences Counting groups of ten Write numbers to represent amount counted Writing to 100 Count to 100 Count groups of ten and count on to count how many

	sign, equals, sum. Vocabulary Words: less, take away, subtract, equals sign, difference, subtraction sentence, separating, comparing, minus sign, difference. Math Stories that reinforce concepts: Monster Musical Chairs: Subtracting One, Ten Little Mice	Use hundreds chart to count by 2, 5, 10 Extend number patterns Vocabulary words: count by tens, hundred chart, count by twos, count by fives, ten more, ten less, skip counting
Assessment	Teacher Observations during work and teaching times Individual Conferences - during check-in and correction times	Teacher Observations during work and teaching times Individual Conferences - during check-in and correction times
Resources	Explorations Worksheets Addition and Subtraction Game Sea Rhymes p. 247 B Fish Eyes by Lois Ehlert Stone Soup by Heather Forest The Very Hungry Caterpillar by Eric Carle The Rainbow Fish by Marcus Pfister	Explorations Worksheets Number cards Hundred charts dominos The King's Commissioners by Aileen Friedman Artic Fives Arrive by Elinor J. Pinczes