

| Subject | Grade | Strand | Big Idea | |
|----------------|--------------|-----------------------------------|--------------------------------------------------------------------------------|----------------------|
| Math | | | Rationale, Course Description, Most Important Learner Outcomes, and Evaluation | View |
| Math | K | Number & Operations | Number & Operations 1 A, B, C, D | View |
| Math | K | Number & Operations | Number & Operations 2 A | View |
| Math | K | Number & Operations | Number & Operations 3 A | View |
| Math | K | Algebraic Relationships | Algebraic Relationships 1 A, 1 B, 1 C | View |
| Math | K | Algebraic Relationships | Algebraic Relationships 3 A | View |
| Math | K | Geometric & Spatial Relationships | Geometric & Spatial Relationships 1 A | View |
| Math | K | Geometric & Spatial Relationships | Geometric & Spatial Relationships 2 A | View |
| Math | K | Geometric & Spatial Relationships | Geometric & Spatial Relationships 3 A, 3 C | View |
| Math | K | Geometric & Spatial Relationships | Geometric & Spatial Relationships 4 A | View |
| Math | K | Measurement | Measurement 1 A, 1 C, 1 D | View |
| Math | K | Measurement | Measurement 2 A | View |
| Math | K | Data & Probability | Data & Probability 1 A, 1 B, 1 C | View |

Rationale

A good Kindergarten mathematics program provides a basic foundation for children to perceive math as a way of thinking about the world around us. In this fast changing world, children need to develop the ability to solve problems both logically and creatively.

Course Description

The Kindergarten mathematics course utilizes the concepts of geometry, size relationships, patterning, set comparison, numerals, one-to-one correspondence, addition, subtraction, measurement, money and time to develop a beginning foundation for basic mathematical concepts.

Most Important Learner Outcomes

Student will be able to:

1. Understand numbers, ways to represent numbers, relationships among numbers and number systems.
2. Analyze characteristics and properties of two and three-dimensional geometrical shapes.
3. Understand measurable attributes of objects and the units and processes of measurement.
4. Formulate questions that can be addressed with data and organize and display data to answer them.
5. Understand patterns, relations, and functions.

Evaluation

Kindergarten students are evaluated by teacher observation, student product, and individual oral and written assessments.

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| Phelps County R-3 School | Board Approved Date: Modification Date: |
| Subject: Math | Class Name: Kindergarten |
| Unit: Number and Operations | Duration: Ongoing |
| Show-Me Standards Content: MA 1 | |
| Show-Me Standards Process: 1.6, 1.10 | |
| Grade Level Expectations: N. 1. A. K., N. 1. A. 1. , N. 1. A. 2., N. 1. B. 2. N. 1. C. K. N. 1. D. 2 | |
| Benchmarks: MO.N.1. Understand numbers, ways of representing numbers, relationships among number systems | Performance Indicators (Local Objective) <ol style="list-style-type: none"> 1. Read, write and compare numbers <ul style="list-style-type: none"> • rote counts to 100 recognizes “how many” in a set of objects • read, write and compare whole numbers less than 100 2. Represent and use rational numbers <ul style="list-style-type: none"> • recognize $\frac{1}{2}$, $\frac{1}{3}$, and $\frac{1}{4}$ of a shape 3. Compose and decompose numbers <ul style="list-style-type: none"> • connect number words (orally) and quantities they represent 4. Classify and describe numeric relationships <ul style="list-style-type: none"> • skip count by 2’s, 5’s, & 10’s |
| Activities and Assessments: | |
| <ol style="list-style-type: none"> 1. Each morning during circle time, the helper will be calendar and counting person. They point with a pointer and count the days in the month. 2. The helper then moves to the “Days of the School” calendar and adds a new number and then points and counts the number of days they have been in school. 3. Keep track of the days by using a hundreds chart in which a number card for each day of school has been added. An AB pattern is made with odd and even numbers using a colored card. 4. Play the game Ogre with them. In the game, number strips with the numbers 0-50 at the bottom are put in a container along with four ogre cards. The class takes turns pulling out a number and identifying it. If they recognize the number card, they keep it unless they pull out an ogre card and then all of their cards are to be put back into the container. The person with the most cards wins. 5. Play Number Bingo allowing the winner to be the next caller. 6. Play file folder games from Carson Dellosa like: <i>Elmer and Ella Elephant</i> (Color Words and Number Sets), <i>Top Banana</i> (Numbers and Sets 1-10), & <i>Mathamagic</i> (Numbers, Number Words and Sets 1-12). 7. Write the numbers to 100 by writing them in increments. Start at day 50 and write numbers to 50; day sixty-60, seventy-70, etc. until day 100 is reached. Use number charts to look at when you first start to write the numbers and then wean them away from it by day 100 of school. 8. At day 100, have a special celebration and wear 100 day glasses. Each member of the class is asked to bring in a treat of 100 items to make trail mix (raisins, pretzels, marshmallows, chocolate chips, M & M’s. etc) and then it is mixed altogether. Then put stickers on graph paper with 100 graph boxes and write numbers to 100. 9. Read aloud counting books which is listed under resources. 10. Have them count how many came to class today. 11. Give them a set of number cards that has had a hole punched on one end. Have them attach links or | |

- paper clips in the hole.
12. Use blackline masters from notebooks in Kindergarten Room.
 13. Starting with shape pieces, show how they can be divided into equal parts. Use triangles, rectangles, squares, and circles and see how many equal pieces can be cut from a whole.
 14. Read the book *The Hershey's Book of Chocolate*, show them how to divide evenly a real Hershey's bar with a friend.
 15. Cut out pictures from magazines and sort them into piles of those that can be divided into congruent pieces and those that can't. Paste the pictures onto a chart.
 16. Play the Pizza Pie game.
 17. Student will work in pairs and using pattern blocks, attribute beads, or rhythm beads, one student will build a design and the other will build an identical design (congruent) or the mirror of the design creating a line of symmetry.
 18. Use pattern blocks to divide a shape in half.
 19. Make a number book and draw objects for each number or use stickers or stamps.
 20. Use worksheets on one-to-one correspondence and counting .
 21. Practice Skip Counting each morning at Morning Meeting.
 22. Using the hundreds chart, for the ones black numbers are used, tens (purple), fives (blue), and the twos (pink) and that makes it easier to learn to skip count. Do this in increments so they are not overwhelmed with too much information too soon. Start with tens right away and add the blue fives after day 100 of school and then about 25 days later add the pink twos.
 23. Take the class to the computer lab and play some of the following games from K-1 Math:
Hundreds Chart *100 Hunt/Give the Dog a Bone/Hundred Chart/Interactive 100 Square/Number Square & Mend the Number Square.*

Assessments:

Common Assessment for Math

Resources:

TeacherView.com (100 chart's/Fill in the missing numbers)

Hundreds Chart/Lapboards/Number Bingo Game

Math game Ogre <http://www.dr.jean.com>

Books: *The Cheerios Counting Book* by Barbara Barbieri McGrath

Ten in a Bed by Mary Ree

Hershey's Fractions in Action

Ten Black Dots by Donald Crews

Relevant Links:

<http://www.primarygames.com>

<http://www.mathplayground.com> (Math Playground)

<http://www.teachers.ash.org.au/jeather/rainforestmath/RAINFORESTmaths.html> Rainforest Math

http://www.thedigitalscoop.com/web_resources.html Counting Games

<http://www.kidport.com/GradeK/MathIndex.htm> Numbers and Sequencing Numbers

K-1 Math # 1 Number Recognition & Counting # 2 Hundreds Chart

<http://www.sowashco.k12.mn.us/virtualmedia/elementary/math/k-1math.htm>

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| Phelps County R-3 School | Board Approved Date: Modification Date: |
| Subject: Math | Class Name: Kindergarten |
| Unit: Number and Operations | Duration: Ongoing |
| Show-Me Standards Content: MA 1 Show-Me Standards Process: 1.6, 1.10 | |
| Grade Level Expectations: N.2.A.1. N.2.A.2 | |
| Benchmarks: MO.N.2. Understand meanings of operations and how they relate to one another | Performance Indicators(Local Objective): 1. Represent a given situation involving addition 2. Represent a given situation involving addition and subtraction |
| Activities and Assessments: | |
| <ol style="list-style-type: none"> 1. Act out stories. Use work mats and counters. They are asked to pretend their mat is a playground and to put so many counters on it. Then some more came and now how many are there. Also do several lessons of this nature that contains both addition and subtraction.. 2. Teach them touch math from the Touch Math series. This is preferable to them using their fingers to count and add. 3. Write their first and last name on sentence strips and cut them apart and then have them add how many letters are in their first name, last name, and then altogether. 4. Play addition the file folder game from Carson Dellosa <i>Fishing Fun!</i> (Addition to Ten). 5. Give each student a basket containing 6 linking cubs of one color and 6 another color and a dice. Have them roll the dice twice and show their answer by linking the two different color of cubes together. Have them record their equation and answer on paper. See who has the most after 15 minutes. 6. Have addition relays on the board. (<u>One Step, No Prep</u>). 7. Play domino addition and have them write their equations vertically & horizontally. 8. Use spinners and manipulatives to play addition and subtraction. 9. Use a clothes line and hang up the number cards and play flashlight addition and subtraction. 10. Play Board Races, call out an addition or subtraction problem and have two students at the board. The first one to write the answer on the board, faces a new challenger. 11. Make a Number Generator Bottle using a small plastic clear bottle, two dice and food coloring. Fill the bottle $\frac{2}{3}$ full of water and add a few drops of food coloring. Drop in two dice and glue on the lid. Children shake up the bottle and then hold it up. Have them identify the number on the dice and add them up. 12. Worksheets out of the Math notebooks in Kindergarten. 13. Take the class to the computer lab to play Addition & Subtraction games from K-1 Math. 14. In the computer lab they can also play addition & subtraction games at Kidport Kindergarten. | |
| Assessments: Teacher Observations, Common Assessments for Math | |

Resources:

File Folder Games by Carson Dellosa

One Step, No Prep by Creative Teaching Press

Video's: Addition & Subtraction by The Learning Treehouse Series

Manipulatives: number cards, zoo animals, farm animals, dinosaurs, dominoes, play dough, sky-to-ground writing paper, *Primary Tablet* C.D., C.D. Player, T.V.& VCR, Computer, LMC, linking cubes, counters.

Relevant Links:

Soft Schools <http://www.softschools.com/>

Math Journals <http://www.calicocookie.com/mathjournal.htm>

Kidport Kindergarten <http://www.kidport.com/GradeK/Math/MathIndex.htm>

K-1 Math # 2 & 3 Addition & Subtraction

<http://www.sowashco.k12.mn.us/virtualmedia/elementary/math/k-1math.htm>

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| Phelps County R-3 School | Board Approved Date: Modification Date: |
| Subject: Math | Class Name: Kindergarten |
| Unit: Number and Operations | Duration: Ongoing |
| Show-Me Standards Content: MA 1 Show-Me Standards Process: 1.6, 1.10 | |
| Grade Level Expectations: N.3.A.K. | |
| Benchmarks: MO.N.3. Use physical models and real-world experiences to construct number meanings. | Performance Indicators (Local Objective): 1. Compute fluently and make reasonable estimates <ul style="list-style-type: none"> • recognize numerals up to 31 |
| Activities and Assessments: | |
| <ol style="list-style-type: none"> 1. Listen to Dr. Jean’s C.D. <u>Sing To Learn</u> and play the <i>Numeral Song</i>. While playing it make the motions of how each numeral is formed. The motions are located at her web site <i>drjean.org</i>. 2. Use math journals. These will be simple weekly journals which are made according to the directions in Dr. Jean’s book. Start with the first day of school and have the draw how they felt about coming to school. Then, make a number one at the bottom of the page showing day 1. Send them home at the end of the week. 3. Form numbers using play dough at Center Time. 4. Using geoboards and rubber bands, make the numbers 1-9. 5. Using twistable colored pencils, trace numbers using worksheets made from the computer C.D. “Primary Tablet”. 6. Use plastic sleeves and sentence strips to trace numbers using wax crayons. 7. Use lapboards which include sky-to-ground lines and washable markers to make form numbers. 8. Use colored paper and crayola rainbow twistables to copy numbers. 9. Use wikki stix to form numbers. 10. Students may use small chalkboards and colored chalk to write numbers. 11. Count objects in the room that is a certain shape, color, or size and write the number. 12. Using graph paper, start writing the numbers to 100 in increments of 10’s start at day 20. They should be able to write their numbers legibly by Day 100 and without using a visual. 13. Have number races on the board in which the class is divide up into teams and race to write a number when it is called out. You can even play higher or lower number. 14. Practice reading & writing numbers 0-31. 15. Play the file folder games from Carson Dellosa: <i>An Apple a Day</i> (Numbers and Counting 1-10), <i>Top Banana</i> (Numbers and Sets 1-10), <i>Humpty Dumpty</i> (Numerical Order 1-10), & <i>Paint by Number</i> (Numerical Order 1-15). 16. Take them to the computer lab to play math games: <i>Da Number</i> from Primary Games, <i>Count Crayfish & More Counting</i> from Rainforest Math, <i>Numbers, Sequencing Numbers, & How Many?</i> From Kidport, <i>Count Your Chickens & Number Train</i> from The Learning Planet, <i>123</i> from Gamequarium. Also K-1 Math Number Recognition & Counting. | |
| Assessments: Teacher observations, Common Assessments for Math | |

Resources:

Dr. Jean Sing to Learn, [Dr. Jean's Super Strategies for "Jump Starting" Beginning Reading](#).

C.D. "Primary Tablet", **Sky to Ground** handwriting paper and lapboards

Computer Lab

Carson Dellosa File Folder Games Reading & Math

Materials: twistable rainbow crayons, wikki stix, c.d. player, play dough, geoboards & rubber bands, twistable colored pencils, plastic sleeves & wax crayons, "sky-to-ground" lapboards, "sky-to-ground" paper, small blackboards & colored chalk, and graphing paper to write numbers to 100.

Relevant Link: <http://www.hubbardscupboard.org/math.html> **Hubbards Cupboard**

<http://www.primarygames.com/games.htm> **Primary Games**

<http://www.kidport.com/GradeK/Math/MathIndex.htm> **Kidport**

<http://www.teachers.ash.org.au/jeather/rainforestmaths/RAINFORESTmaths.html> **Rainforest Math**

<http://www.learningplanet.com/stu/kids1.asp> **The Learning Planet**

<http://gamequarium.com/gamejrindex.html> **Gamequarium Jr**

<http://www.sowashco.k12.mn.us/virtualmedia/elementary/math/k-1math.htm> **K-1 Math**

Smarttech.com (Find correlated activities)

<http://correlation.edgate.com/reports;jsessionid=E19E83AF9C6D0ED67A50F329569E2C7>

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| Phelps County R-3 School | Board Approved Date: Modification Date: |
| Subject: Math | Class Name: Kindergarten |
| Unit: Algebraic Relationships | Duration: Ongoing |
| Show-Me Standards Content: MA 2,4 | |
| Show-Me Standards Process: 1.6, 1.8 | |
| Grade Level Expectations: A.1.A.K. A.1.B.K. A.1.C.K. | |
| Benchmarks: MO.A.1.Understand patterns, relations and functions | Performance Indicators(Local Objective): <ol style="list-style-type: none"> 1. Recognize and extend patterns <ul style="list-style-type: none"> • recognize or repeat sequences of sounds or shapes 2. Create and analyze patterns <ul style="list-style-type: none"> • create and continue patterns 3. Classify objects and representations <ul style="list-style-type: none"> • sort objects by size |

Activities and Assessments:

1. Invite children to create a repeating pattern using natural objects such as twigs, leaves, and stones. They can glue their patterns on long strips of paper. Let children share and describe their pattern.
2. Create a pattern using children such as boy, girl, boy, girl.
3. Look for patterns in the environment.
4. Create holiday or seasonal patterns to use for the dates on the calendar (leaves, pumpkins, mittens, etc.).
5. Using linking or unifix cubes make different patterns (AB, ABC, AABB). Reproduce pattern on grid paper. To make it more fun, buy individual packages of candy like M & M's or Skittles and they can eat their math lesson when finished.
6. Make a peek-a-boo book. Each page in the book will be a pattern that the children create. Have the last picture covered up, so the reader must guess, what comes next.
7. Sort Fruit Loops and string to make a necklace using patterns of choice-AB, ABC, AABB, etc.
8. Read aloud The M&M's Color Pattern book and distribute a small bag of M&M's and a grid sheet and have them sort their candy. Then let them enjoy the snack.
9. Begin a rhythm pattern – clap, clap, stomp, stomp, clap, clap, stomp, stomp. Have students listen and repeat.
10. Use stickers or stamp with stamp pads to create and extend patterns.
11. Do workbook pages on Patterning.
12. Play file folder games from Carson Dellosa *Creepy Critter & Just Ducky* (Visual Discrimination: Matching Patterns).
13. Set a container of multicolored links in the floor. Tell the class that they are going to make an (AB), (ABC), or (AABB) chain using different colored links.
14. Give each child a shape piece and have them line themselves up in a pattern.
15. Explore Pattern Blocks. Create and extend a pattern with them. Name a Shape Piece Using Three Attributes (Shape, Color, Size). Creating and Reading an AB Color Pattern. Copy Patterns and Identifying an AB Pattern. Name a shape piece using Two Attributes (color and Shape). Identify a Missing Piece in a Matrix.

Assessment: Teacher testing on individual basis copying and extending an AB, ABB pattern.
Teacher observation during class. Common Assessment for Math.

Resources:

The M&M's Color Pattern Book

File Folder Games by Carson Dellosa

Materials: Grid Paper, monthly calendar, manipulatives (linking cubes, colored links, zoo animals, farm animals), stickers, stamps & stamp pads, environmental objects (sticks, rocks, ect.), cereal or candy .

Relevant Links:

<http://www.primarygames.com/curriculum/math.htm> Carnival Jackpot, Topsy Turvy

<http://www.teachers.ash.org.au/jeather/rainforestmath/RAINFORESTmaths.html> Algebraic Patterns

<Http://www.sowashco.k12.mn.us/virtualmedia/elementary/math/k-1math.htm> Patterns, Functions, & Algebra

Smarttech.com (Find correlated activities)

<http://correlation.edgate.com/reports;jsessionid=E19E83AF9C6D0ED67A50F329569E2C7>

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| Phelps County R-3 School | Board Approved Date: Modification Date: |
| Subject: Math | Class Name: Kindergarten |
| Unit: Algebraic Relationships | Duration: Ongoing |
| Show-Me Standards Content: MA 1, 4 Show-Me Standards Process: 1.6, 3.6 | |
| Grade Level Expectations: A.3.A.K. | |
| Benchmarks: MO.A.3. Use mathematical models to represent and understand quantitative relationships. | Performance Indicators (Local Objective): 1. Use mathematical models <ul style="list-style-type: none"> • model situations that involve whole numbers, using pictures, objects or symbols |
| <p style="text-align: center;">Activities and Assessments:</p> <ol style="list-style-type: none"> 1. In the math journals, include story problems that will use mathematical problems and have them illustrate their answer <ul style="list-style-type: none"> • There are one dog and two birds. How many legs do they have altogether? • If you had two fish in your fish bowl and I gave you three more, how many would you have altogether? • One day the little red hen baked a loaf of bread for herself and her 3 chicks. She sliced the bread into 3 pieces. Her chicks each got a piece but the little red he didn't get any! How could she slice the bread so that everyone would get a piece? Draw what the bread would look like. 2. Have them show 3 you examples of math problems using manipulatives such as tubs of farm animals, zoo animals, popsicle sticks, crayons, erasers, etc. 3. Have them use the magnetic board and number magnets and equations signs to demonstrate mathematical problems. 4. Use the die cut pictures and equation signs in the pocket chart to show an addition or subtraction equation. 5. Play games in the computer lab at Kidport called <i>Number Sentences</i>. <p>Assessments: Reviewing Math Journals weekly. Teacher observation at Center time</p> | |
| <p style="text-align: center;">Resources</p> <p>Pocket Charts, die cut shapes, magnetic numbers & equation signs.</p> <p>Relevant Links:</p> <p>Math Journals and Other Math Ideas for Primary Grade Teachers http://www.calicocookie.co/mathjournal.html</p> <p>Kidport Kindergarten http://www.kidport.com/GradeK/Math/MathIndex.htm</p> <p>Smarttech.com (Find correlated activities) http://correlation.edgate.com/reports;jsessionid=E19E83AF9C6D0ED67A50F329569E2C7</p> | |

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| Phelps County R-3 School | Board Approved Date: Modification Date: |
| Subject: Math | Class Name: Kindergarten |
| Unit: Geometric and Spatial Relationships | Duration: Ongoing |
| Show-Me Standards Content: MA 2 | |
| Show-Me Standards Process: 1.6 | |
| Grade Level Expectations: G.1.A.K | |
| Benchmarks: MO.G.1. Analyze characteristics and properties of two-and-three-dimensional geometric shapes and develop mathematical arguments about geometric relationships | Performance Indicators(Local Objective): 1. Describe and use geometric relationships <ul style="list-style-type: none"> • Sort 2-and3-dimensional shapes using physical models (circle, rectangle, triangle, sphere, rectangular prism, cylinder, pyramid) |

Activities and Assessments:

1. Each child is given a note book and asked to draw objects made of shapes in the classroom, school, or on the playground.
2. Given drawing paper, the child is asked to draw a house made from shapes.
3. The class is asked to recognize shapes within other objects throughout the classroom.
4. Play Color and Shape Bingo. Cover shape that is called out. First one to fill bingo card in different ways (top row only, bottom row only, only corners, blackout) wins.
5. Draw different shapes in shaving cream.
6. On chart paper, write different objects in the environment that are a specific shape. Do different charts for different shapes.
7. Make shape puppets.
8. Use shapes to construct animals, insects, people, towns, etc.
9. Make a class shape collage using pictures from magazines.
10. Make shape books.
11. Divide the class into small groups of 3-4 people. Distribute blocks to each group. Each group gets the same amount of blocks that are the same shape. Have group work together to build something. When finished, go around to each group and have them describe what they made.
12. Use the C.D. player and play Dr. Jean's *Tooty Ta* for following directions and then play *The Shape Song*.
13. Name a Shape Piece Using Three Attributes (Shape, Color, and Size).
14. Use shape pieces to create patterns (AB,ABC, & ABB).
15. Shape workbook sheets.
16. Make shapes using play dough.
17. Make shapes using geoboards and rubber bands.
18. Using geometric shapes (sphere, cylinder, cone, pyramid, rectangular prism, sphere, and cube) decide which slide, roll, flipped or stacked.
19. Play file folder games from Carson Dellosa *Ship Shape* (shapes) & *Shape Sorters* (shapes).
20. Take the class to the computer lab to play one of the many games listed under relevant links.

Assessments: Teacher may assess by observing student performance. Common Assessments for Math.

Resources:

Carson Dellosa *File Folder Games*

Materials: Geoboards & rubber bands, playdough, geometric shapes, pattern blocks, shape pieces (cone, cylinder, sphere, rectangular prism, pyramid, and cube).

Relevant Links:

<http://kidschalkboard.com/mathscience.html>

Kids Chalkboard

<http://www.primarygames.com/curriculum/math.htm> Primary Games.com

<http://www.kidport.com/GradeK/Math/MathIndex.htm> Kidport Kindergarten

<Http://www.sowashco.k12.mn.us/virtualmedia/elementary/math/k-1math.htm>

Geometry

Smarttech.com (Find correlated activities)

<http://correlation.edgate.com/reports;jsessionid=E19E83AF9C6D067A520F329569E2C7>

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| Phelps County R-3 School | Board Approved Date: Modification Date: |
| Subject: Math | Class Name: Kindergarten |
| Unit: Geometric and Spatial Relationships | Duration: Ongoing |
| Show-Me Standards Content: MA 2 Show-Me Standards Process: 2.3, 3.3, 4.1 | |
| Grade Level Expectations: G.2.A.K. (ST- MA 2-3.3, 4.1) G.2.A.1. (ST-2 2.3, 4.1) | |
| Benchmarks: MO.G.2. Specify locations and describe spatial relationships using coordinate geometry and other representational systems | Performance Indicators (Local Objective): <ol style="list-style-type: none"> 1. Be able to describe, name, and interpret relative position of an object in space(above, below, front, behind) 2. Describe, name and interpret relative positions in space (left, right) |
| Activities and Assessments <ol style="list-style-type: none"> 1. Practice Position and Sorting at the Math Center. 2. Hide stuffed animals or puppets around the room and have the class give you specific directions (behind, left/right, under, etc.) to find them. 3. Identify Ordinal Position to Fourth. Line students up and have them count off in ordinal position. 4. Take them to the computer lab and play the Position/Location game from Rainforest Math. 5. Have them draw in their math journals and use position words such as: draw a bear in the middle, put a cap on his head, draw a flower in front of him, etc. 6. Play “Simon Says”, giving instructions which use positional words. 7. Do worksheet from Teacher Helper magazine on positional words Aug.-Sept. issue. <p>Assessment: Common Assessment for Math</p> | |
| Resources <p>Stuffed Animals & Puppets</p> <p>Teacher Helper Magazine (LMC)</p> <p>Relevant Links:</p> <p>http://www.teachers.ash.org.au/jeather/rainforestmath/RAINFORESTmaths.html</p> <p>Smarttech.com (Find correlated activities)</p> <p>http://correlation.edgate.com/reports;jsessionid=E19E83AF9C6D0ED67A50F329569E2C7</p> | |

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| Phelps County R-3 School | Board Approved Date: Modification Date: |
| Subject: Math | Class Name: Kindergarten |
| Unit: Geometric and Spatial Relationships | Duration: Ongoing |
| Show-Me Standards Content: MA 2 | |
| Show-Me Standards Process:1.4, 1.10 | |
| Grade Level Expectations: G.3.A.1 G.3.A.2. G.3.C.2 | |
| Benchmarks: MO.G.3.Use transformations on objects | Performance Indicators(Local Objective): 1. Use manipulatives to model slides and turns 2. Use manipulatives to model flips 3. Use symmetry |
| Activities and Assessments: | |
| <ol style="list-style-type: none"> 1. Worksheets on plane shapes. 2. Explore shapes using pattern blocks covering designs using Pattern Blocks, create a Tangram design, cover designs with Tangrams. 3. Allow them to play with the tangrams mats and tangrams during center time. 4. Worksheets on symmetry. <p><i>Assessment:</i> Common Assessments for Math.</p> | |
| Resources: | |
| <i>Materials:</i> pattern blocks, tangrams & mats. | |
| <i>Relevant Links:</i> | |
| http://www.primarygames.com/curriculum/math.htm | Geometry, angles |

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| Phelps County R-3 School | Board Approved Date: Modification Date: |
| Subject: Math | Class Name: Kindergarten |
| Unit: Geometric and Spatial Relationships | Duration: Ongoing |
| Show-Me Standards Content: MA 2 Show-Me Standards Process: 3.3 | |
| Grade Level Expectations: G.4.A.K | |
| Benchmarks: MO.G.4. Use visualization, spatial reasoning and geometric modeling to solve problems | Performance Indicators(Local Objective): 1. Recognize and draw three-dimensional representations <ul style="list-style-type: none"> • recognize geometric shapes in the student's environment (stop sign, number cube, ball) |
| Activities and Assessments: | |
| 1. Using the math journals, have them draw something in the classroom that is shaped like a ball (globe). Show them examples of things that are round and things that are flat circles (such as a globe and a Clock). 2. Show them how a number cube is different from a flat square. Find examples in your classroom. 3. Show them examples of environmental sign such as stop signs. | |
| Assessment: Teacher observation. | |
| Resources | |
| Materials: environmental signs 3-dimensional shapes located in the classroom. | |
| Relevant Links: | |
| Smarttech.com (Find correlated activities) | |
| http://correlation.edgate.com/reports;jsessionid=E19E83AF9C6D0ED67A50F329569E2C7 | |
| http://www.primarygames.com/curriculum/math.htm | |

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| Phelps County R-3 School | Board Approved Date: Modification Date: |
| Subject: Math | Class Name: Kindergarten |
| Unit: Measurement | Duration: Ongoing |
| Show-Me Standards Content: MA 2 | |
| Show-Me Standards Process: 1.8, 3.3 | |
| Grade Level Expectations: M.1.A.K. M.1.C.K. M.1.C.1. M.1.D.K. | |
| Benchmarks: MO.M.1.Understand measurable attributes of objects and the units, systems and processes of measurement | Performance Indicators(Local Objective): <ol style="list-style-type: none"> 1. Determine unit of measurement <ul style="list-style-type: none"> • compare and order objects according to their size or weight 2. Tell and use units of time <ul style="list-style-type: none"> • describe passage of time using terms such as today, yesterday, tomorrow 3. Tell time to the nearest hour 4. Count and compute money <ul style="list-style-type: none"> • identify and know the value of a penny, nickel, and dime |
| Activities and Assessments: | |
| <ol style="list-style-type: none"> 1. Chose three class members and have them choose an object in the room. See if they can put the objects in order from lightest to heaviest. 2. Worksheets on Capacity, Weight, and Temperature. 3. In the puppet section, have each student chose two animals. One that they think would be heavy in real life and one that would be lighter in weight. 4. Have them use the scales and cubes to weight items found in the classroom. 5. In morning meetings, use sentence starters, TODAY is..., Yesterday was..., Tomorrow will be.... 6. Talk about events that occur in their daily lives like brushing their teeth or eating dinner and ask them which one would take the longest amount of time and which one the shortest amount of time. 7. Using a set of Judy clocks, have the class set them at different hours of the day and ask them what they would be doing at about this time of the day. Introduce the terms morning, noon, and night and have them use one of the terms in their answers. 8. Discuss with them that events that occur after midnight until noon are said to be in the a.m. time and the time between noon and midnight is p.m.. 9. Discuss Calendar Time and Clock Time. 10. Using the Judy clock, show them that there are 60 minutes in an hour. Show that half of that would be 30 minutes so we call that half past the hour. Have them practice using their own small Judy clocks. 11. During our circle time activities, use a poster for coin identification and counting. 12. Students will be introduced to the front and back of coins and that they are identified as heads and tails. They will be given a cup of coins and group into pairs to play the game. 13. Put pennies in film containers and they are given a sheet with a pocket. They are to count so many pennies in their pockets. 14. They will be acting out stories using pennies. 15. Use worksheets to circle money amounts to 10 cents and paying for items using ten cents. 16. They will be counting and paying for items on worksheets using pennies, nickels, dimes, and quarters. | |

17. Start identifying and counting by 5's using nickels.
18. Play money games in their room where there will be a film container on their desk with a specific amount of coins. They will not be allowed to open their containers until you start calling out amounts. You will ask who has seven cents in their container and they will raise their hands and if they are correct they will get a sticker for their chart.
19. Use the magnetic board, magnetic coins, and the magnetic price tags and call on someone to show you the coins that will make the amount on the price tag. Then ask if there is a different way to show the same amount.

Assessment: Teacher observation , Common Assessments for Math.

Resources:

Materials: Judy Clocks, scales, magnetic money & magnetic board, plastic pennies, nickels, & dimes, bulletin board set of coins, stuffed animals or puppets, empty film containers for coins.

Relevant Links:

<http://www.kidschalkboard.com/mathscience.html>

http://www.computerlab.kids.new.net/math_sites.htm

<http://mathforum.org/varnelle/index.html>

<http://www.primarygames.com/curriculum/math.htm> Time

<Http://www.sowashco.k12.mn.us/virtualmedia/elementary/math/k-1math.htm> Time & Money

Smarttech.com (Find correlated activities)

<http://correlation.edgate.com/reports;jsessionid=E19E83AF9C6D0ED67A50F329569E2C7>

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| Phelps County R-3 School | Board Approved Date: Modification Date: |
| Subject: Math | Class Name: Kindergarten |
| Unit: Measurement | Duration: Ongoing |
| Show-Me Standards Content: MA 2 Show-Me Standards Process: 3.3 | |
| Grade Level Expectations: M.2.A.K. | |
| Benchmarks: MO.M.2. Apply appropriate techniques, tools and formulas to determine measurements. | Performance Indicators(Local Objective): <ol style="list-style-type: none"> 1. Use standard or non-standard measurements • Measure with multiple copies of a unit of the same size (e.g., paper clips laid end to end). |
| <p style="text-align: center;">Activities and Assessments:</p> <ol style="list-style-type: none"> 1. Compare any two or three objects and tell which is longer or shorter. 2. Compare heights of children in the classroom. Make a growth chart and/or trace bodies. 3. Use inch worms to measure 3 items in the classroom. How many inch worms long is each of the objects? Work in groups and report findings to the class. Who found the longest and the shortest object? 4. Use rulers to measure Native American items, Called Indian Inches. | |
| <p style="text-align: center;">Resources:</p> <p>Relevant Links:</p> <p>http://www.primarygames.com/curriculum/math.htm</p> <p>Smarttech.com (Find correlated activities)</p> <p>http://correlation.edgate.com/reports;jsessionid=E19E83AF9C6D0ED67A50F329569E2C7</p> | |

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| Phelps County R-3 School | Board Approved Date: Modification Date: |
| Subject: Math | Class Name: Kindergarten |
| Unit: Data & Probability | Duration: Ongoing |
| Show-Me Standards Content: MA 2,3 | |
| Show-Me Standards Process: 1.2, 1.8 | |
| Grade Level Expectations: D.1.A.K. D.1.B.K. D.1.C.K. | |
| Benchmarks: MO.D.1. Formulate questions that can be addressed with data and collect, organize and display relevant data to answer them | Performance Indicators (Local Objective): <ol style="list-style-type: none"> 1. Formulate questions <ul style="list-style-type: none"> • Pose questions and gather data about themselves and their surroundings 2. Classify and organize data <ul style="list-style-type: none"> • Sort items according to their attributes 3. Represent and interpret data <ul style="list-style-type: none"> • Represent data using physical objects |

Activities and Assessments:

1. Construct charts or graphs with children's response to specific questions (e.g. favorite food, color, pet, etc.)
2. Read the M & M's Counting Book and hand out bags of M & M's for them to graph by color using a graphing grid.
3. Have the class vote on class decisions (extra recess or learning centers) and use tally marks to record results.
4. Using the Algebraic Sorting bulletin board set, have the class sort shapes and pictures of pets and toys by using three attributes (color, shape, size).
5. Determine whether there are more girls than boys in the room by using a pictograph .
6. We will make a real graph using our shoes and deciding how to graph them (those that tie/don't, by color, dress v. sports shoe, etc.).
7. Estimation Bottle-clear plastic bottle and small objects (marbles, candy, erasers, pennies, crayons, etc.). Place one of the objects above the bottle on the lid. Vary the amount according to the ability of the students. Pass the bottle around and let each student "estimate" how many. Dump out the contents and count the objects together. Who guessed more? Who guessed less? Who was closest? Variations: Use this idea for a classroom party. Put candy or other small items in the bottle. The one with the closest guess can pass out the goodies to their classmates.
8. Bring in a pumpkin during the fall and have them guess the weight. Using a laminated pumpkin, record their guesses and display it in class. Have them vote on who they think will be the closest. Weigh the pumpkin and post the results.
9. During Center Time, have them use the Sorting Box that contains plastic circles to form Venn Diagrams and objects for sorting using the three attributes (color, shape, size).

Assessment: Common Assessment for Math

Resources:

Large Plastic Graph and Venn Diagram that sticks to the white board.

M & M's Counting Book

Sorting box with Venn Diagram circles and sorting objects

Algebraic Sorting Bulletin Board Set by Carson Dellosa

Graphing Pocket Chart

Materials: Graphing Mat, Graphing cards (pets, color, eye color, hair color, etc.), and clear bottles.

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Smarttech.com (Find correlated activities)

<http://correlation.edgate.com/reports;jsessionid=E19E83AF9C6D0ED67A50F329569E2C7>

<Http://www.sowashco.k12.mn.us/virtualmedia/elementary/math/k-1math.htm>

Data & Statistics