

**MATH MITES (12 Weeks)
IN LIBRARY**

WEEK 1: COUNTING BEYOND

WEEK 2: SUBTRACTING ONE

WEEK 3: SIZE

WEEK 4: TALLYING

WEEK 5: SHAPES

WEEK 6: NUMBER ORDER

WEEK 7: PATTERNS

WEEK 8: MORE OR LESS

WEEK 9: PAIRS & MATCHING

WEEK 10: SEQUENCING

WEEK 11: SETS

WEEK 12: TIME (ON THE HOUR)

TIPS

One Month Before the 12-week program, check the general inventory:

- Portable flannelboard.
- Tripod.
- Rhythm sticks.
- Colored index cards (10 cards for each child).
- Plastic sandwich bags (200).
- Large yellow post-it notes (10 notes for each child).
- Small yellow post-it notes (8 notes for each child).
- 30 8-packs crayons.
- Silver crayons (30).
- Sharpies (assorted colors).
- Scotch tape.
- 1 small envelope for each child.
- Light-colored butcher block paper (at least 12 feet for each program).
- Cups, spoons, napkins and bowls, 1 for each child.
- Butcher block paper (10 feet for each class).
- Green, brown and other assorted flannel pieces, if making flannelboard stories for the first time.

Order from Amazon.com for each 12-week program:

- Counting beads (30 for each child).
- Measuring worms (5 per child).
- Counting bears (10 per child).
- Pack of pom poms (20 per child).
- Foam letter and number stickers (20 per child).
- Foam shapes stickers (20 per child).
- Assorted flat stickers (20 per child).
- Craft stems (2 per child).
- Assorted buttons (10 per child).

Copy worksheets for each child and parent or caregiver:

- Preschool Math Songs handouts for parents and caregivers.
- One-page *Mathstart* books handouts from http://www.mathstart-at-20.com/uploads/2/1/8/1/21819274/63_books_one_pager.pdf
- Size worksheets from <http://www.greatschools.org/worksheets-activities/5579-big-bigger-biggest.gs>.
- *Fun with Shapes* worksheets.
- Clock worksheets.
- Analog clocks worksheets.

Prepare the "Every-Time Library Bag."

- *Favorite Counting Songs* by Baby Genius.
- Preschool Math Songs handouts for parents.
- Weekly program plans.
- One-page *Mathstart* books handouts from http://www.mathstart-at-20.com/uploads/2/1/8/1/21819274/63_books_one_pager.pdf

If this will be an ongoing program, obtain the books and other reusable materials listed under the description of each program. Make 12 bags--one for each program. Many of these items can be found in a large library's existing collection.

At least one week before each program, obtain the books (including additional concept books for patrons to check out) needed for that week's program. Do an inventory of the week's programming bag, and gather any needed materials.

The day of each program, arrange for one long activity table with chairs for both children and caregivers, and a storytelling area where children and caregivers can sit on the floor in a circle.

Don't put manipulatives out until they will be used, then put them on a small table to discourage children from playing with them during the readings. A big book tripod or flannelboard with a bar to hold big books, cards and small manipulatives is also helpful.

When children need to move from one activity to another, say "Will all of the 5 year olds please go to their seats. Will all of the 4 year olds..." until everyone is at their seats.

ALL WEEKS

Gather program bag, flannelboard, tripod or flannelboard, CD player and rhythm sticks. Review the program plan and songs.

Allow at least 30 minutes before the program time to set up the materials. Play the CD while setting up.

WEEK 1: COUNTING BEYOND

Preparation: A week before the program, collect the materials needed (below). Make a flannelboard (make color copies, laminate, cut out and apply felt to the back) of the pictures of all 20 piggies and the wolf from *20 Hungry Piggies*.

Just before the program, set out display books, Preschool Math Songs handouts and one-page *Mathstart* books handouts. Set up CD. Using butcher block paper and markers, make a 10-foot horizontal number line (noting increments of 10 up to 100) on the wall. Tape it to the wall or floor near the story area, within reach of the children. Just before the program, set up tripod or flannelboard (with *20 Hungry Piggies*).

Introduce the program to parents and caregivers. *Preschool Math is a twelve week program that runs from XX-XX. The program is designed for children ages 3-5 and their caregivers. However, older and younger siblings are always welcome. In the next twelve weeks, we'll be exploring concepts such as counting, subtracting one, size, tallying, shapes and number order. This series will use Stuart Murphy's MathStart series and other picture books that teach math concepts. The MathStart books are leveled 1-4, and activities that reinforce the concepts are provided in the back of the book. We encourage you to check out the books we're using today, and other books from the collection on this week's concept.*

As participants arrive, play the CD.

- Sing opening song: *Who's Here?*
- Read *20 Hungry Piggies* by Trudy Harris. Put flannel piggies and wolf on board as you read.
- Ask: *What else can we count?* Count (together) the number of boys, then girls in the room. Ask: *What will you count when you go home?*
- Sing song: *This Old Man*.
- Read *100 Days of Cool* by Stuart J. Murphy. Have the children write the numbers featured in the story on the number line (at least up to 50).
- Pass out rhythm sticks by age. Sing ending song: *Ten Little Hot Dogs*. Collect rhythm sticks by age.

Activity: Scatter number beads and craft stems and let children string the beads in order.

Materials:

Copies of *100 Days of Cool* by Stuart J. Murphy for every participant and the librarian.

Copies of *Read 20 Hungry Piggies* by Trudy Harris for every participant and the librarian.

Counting song CD such as *Wee Sing & Learn 123* CD by Pamela Conn Beall or *Favorite Counting Songs* by Baby Genius.

Flannelboard of *20 Hungry Piggies*.

10 feet of butcher block paper.

Washable markers.

Tape.

Craft stems for every child in the program.

Number beads (30 for each child).

Mathstart books from the collection (for display).

Other books on counting from the collection (for display).

Preschool Math Songs handouts.

One-page *Mathstart* books handouts (printed from website).

Other counting books: *How Many, How Many, How Many* (counting 1-12) by Rick Walton; *One Duck Stuck* (counting 10) by Phyllis Root; *Math Play!* By Diane McGowan; *Fish Eyes* by Lois Ehlert; *Winnie the Pooh*

123's: Discovering Numbers and Counting (DVD); 1, 2, 3 to the Zoo by Eric Carle; Anno's Counting Book by Anno.

WEEK 2: SUBTRACTING ONE

Preparation: A week before the program, collect the materials needed (below). Make a flannelboard (make color copies, laminate, cut out, and apply felt to the back) of the pictures of frogs and flies from *Five Green and Speckled Frogs*. Make a flannel pond and log. (Keep these in the program bag.) Just before the program, set out 10 counting bears for each child, display books, Preschool Math Songs handouts and one-page *Mathstart* books handouts.

Just before the program, set up tripod or flannelboard and flannelboard (with *Five Green and Speckled Frogs*). Set up 6 monsters on a table or chair. As participants arrive, play the CD.

- Sing: *Who's Here?*
- Perform *Five Green and Speckled Frogs* Flannelboard. Set up 5 frogs (on a log) and 5 bugs (in the "air") on a flannelboard. Move 1 frog and 1 bug to the pool for each verse. *Five little speckled frogs, setting on a hollow log, eating some delicious bugs. Yum, Yum. One frog jumped in the pool, where it was nice and cool. Now there are four speckled frogs. Glub. Glub.* Repeat until there are no frogs or bugs. After each verse, ask children how many frogs are left.
- Sing song: *This Old Man*.
- Read *Monster Musical Chairs* by Stuart Murphy. Read the story once, placing one monster back in the bag at the appropriate times. Place construction paper in two rows, back to back, for each kid (minus one) in the program. Start the CD (or sing), and instruct children to sit down when the music stops. Give each child who can't find a seat a sticker. Remove one piece of construction paper, and ask: *How many monsters are left?* Repeat until every child has a sticker.
- Pass out rhythm sticks by age. Sing ending song: *Ten Little Hot Dogs*. Collect rhythm sticks by age.

Activity 1 (adapted from *Monster Musical Chairs*, p. 32): Have the children line up against one wall. Have them count (together) the number of steps it takes to walk to the opposite wall. Have them turn around and walk back to the starting wall, counting backwards. Ask the children why counting backwards is like subtracting by one.

Activity 2 (from *Monster Musical Chairs*, p. 32): Give each child 10 counting bears. Count the together. Have children put 1 counting bear back into a pile in the middle of the table. Count the remaining bears together (9). Repeat until each child has only 1 bear left. Let each child keep a bear to take home.

Materials:

Copies of *Monster Musical Chairs* by Stuart J. Murphy for every participant and the librarian.

Copies of *Five Green and Speckled Frogs* by Martin Kelly for every participant and the librarian.

Flannelboard of *Five Green and Speckled Frogs*.

6 stuffed monsters (formerly available in the Childcraft Monster Musical Chairs Math Literacy Bag).

Counting song CD such as *Wee Sing & Learn 123* CD by Pamela Conn Beall or *Favorite Counting Songs* by Baby Genius.

Mathstart books from the collection (for display).

Math Mites Songs handouts.

One-page *Mathstart* books handouts (printed from website).

A piece of construction paper (all the same color) for each child in the program.

Stickers.

Counting bears (10 for each child).

My Counting Book by Don L. Curry can be used for both addition and subtraction.

Other books on subtracting one: *Ten, Nine, Eight* by Molly Bang; *Six Brave Explorers* by Kees Morbeck and Carla Dijs; *Using Subtraction at the Park* by Tracey Steffora; *Countdown to Bedtime: 3, 2, 1* by Penny Dann; *More or Less: A Rainforest Counting Book* by Rebecca Fjelland Davis; *More Bugs? Less Bugs?* by Don L. Curry.

WEEK 3: SIZE

Preparation (a week before the program): Collect the materials needed (below). Just before the program, set out display books, Preschool Math Songs handouts and one-page *Mathstart* books handouts. Copy size worksheets from <http://www.greatschools.org/worksheets-activities/5579-big-bigger-biggest.gs>.

Just before the start of the program: Set up CD, penguins, coins, worksheets and crayons. Set up tripod or flannelboard. As participants arrive, play the CD.

- Sing: *Who's Here?*
- Read *Best Bug Parade* by Stuart J. Murphy. At the end of each segment, ask... Which one is the biggest, smallest, etc.
- Place the penguins on the table or chair. Put one penguin in each hand. Ask: *Which is the largest penguin, the one on this side or the one this side.* Spread your arms wide. Say: *Please point.* Mix the penguins up on the table or chair. Ask: *Are these in order?* Put the penguins in order from largest to smallest. Ask: *Are these in order? How?* Ask: *Which is the smallest penguin, the one on this side or the one this side.* Spread your arms wide. Say: *Please point.* Put the penguins in order from smallest to largest. Ask: *Are these in order? How?*
- Sing song: *This Old Man.*
- Read *Watch Out! Big Bro's Coming!* by Jez Alborough (using animal voices). After Big Bro appears, ask: *Who is bigger, Big Bro or Little Bro?... Big Bro or the frog, etc.?*
- Pass out rhythm sticks by age. Sing ending song: *Ten Little Hot Dogs.* Collect rhythm sticks by age.

Activity: Have children do the worksheet with a crayon, and turn it over. Give each child a penny, a nickel and a quarter. (Don't use dimes.) Ask them: *Which is the smallest? Which is the biggest?* Have children put them in order by size. Have them trace the coins on the back of the worksheet. (Optional: have them write 1, 5 and 25 above each circle.)

Materials:

Copies of *Watch Out! Big Bro's Coming!* by Jez Alborough for every participant and the librarian.

Copies of *Best Bug Parade* by Stuart J. Murphy for every participant and the librarian.

Counting song CD such as *Wee Sing & Learn 123* CD by Pamela Conn Beall or *Favorite Counting Songs* by Baby Genius.

Mathstart books from the collection (for display).

Nesting penguins (or another nesting toy).

Math Mites Songs handouts.

One-page *Mathstart* books handouts (printed from website).

A copy of a worksheet from <http://www.greatschools.org/worksheets-activities/5579-big-bigger-biggest.gs> for each participant.

Crayons.

A penny, dime, nickel and quarter for each child.

Other books on size from the collection including *Biggest, Strongest, Fastest* and *Big & Little* by Steve Jenkins and Bridwell's *Clifford* books.

WEEK 4: TALLYING

Preparation (a week before the program):

- Divide post-it notes into pads of approx. ten (one pad for each child).
- Copy a worksheet from the program bag or <http://prek-8.com/preschool/mathtally.html> for each participant.
- Cut a 2' x 4' piece of white or light-colored butcher block paper.
- Pack crayon packs with the appropriately colored crayons. (See *Tally O'Malley* reading below.)

Just before the program: Set out display books; Preschool Math Songs handouts; and one-page *Mathstart* books handouts. Set up the activity table. Tape the butcher block paper on the wall next to the activity table. Put out worksheets and crayons. Set up tripod or flannelboard. As participants arrive, play CD.

- Sing opening song: *Who's Here?*
- Read *Tally Charts* by Vijaya Khisty Bodach. Have 5 sheets of white paper, assorted sharpies, and tape ready. After page 13 (ice cream), ask children what their favorite flavors of ice cream are, and write them on a sheet of paper (taped to a flannelboard) or on a white board. Ask: *How many of you like vanilla ice cream?* Make the tallies. Ask: *Which flavor of ice cream is the most popular?* Repeat with tooth brushes, favorite sports, cars, and quarters. (Shorten as necessary.)
- Sing *This Old Man*.
- Activity: Hand out an 8 pack of crayons to every participant. Ask children to arrange them into tallies. Ask how many crayons they have.
- Hand out post-it notes (with about 10 post-its each) and an 8 pack of crayons to every participant. Read *Tally O'Malley* by Stuart J. Murphy. Have children choose a silver, red or blue crayon for cars; a yellow, green or red crayon for t-shirts, and a black, red or silver (or gray) crayon for train cars. Make a separate tally note for each item being tallied.
- Ask children to put their crayons back in their boxes, and return them to you. Hand out rhythm sticks as children return their crayons. Sing ending song: *Ten Little Hot Dogs*. Collect rhythm sticks by age.

Activity: Set up a sheet of butcher block paper, and ask kids what they'd like to tally. Make tally charts for the number of kids here today, the number of kids wearing red, etc. Have children do tally worksheets from: <http://prek-8.com/preschool/mathtally.html>.

Materials:

Copies of *Tally Charts* by Vijaya Khisty Bodach and *Tally O'Malley* by Stuart J. Murphy for each child.
Counting song CD such as *Wee Sing & Learn 123* CD by Pamela Conn Beall or *Favorite Counting Songs* by Baby Genius.

CD Player.

A copy of a worksheet from <http://prek-8.com/preschool/mathtally.html> for each participant.

Flannelboard.

Mathstart books from the collection (for display).

Rhythm sticks.

Basket of crayons.

5 sheets of white paper.

Sharpies (assorted colors).

2' x 4' piece of white or light-colored butcher block paper.

Tape.

10 quarters.

Other books on tallying: *Let's Make a Tally Chart* by Robin Nelson and *Tally Cat Keeps Track* by Trudy Harris.

Crayon pack (set of 8) for each child. (Insert a silver crayon in each pack if not included.)

WEEK 5: SHAPES

Preparation (a week before the program): Collect the materials needed (below). Cut sheets of shape stickers into strips. Make a flannelboard set with the shapes found in *Museum Shapes*. (Keep these in the program bag.)

Just before the program: Set out display books, Preschool Math Songs handouts and one-page *Mathstart* books handouts. Have the square box and round tape handy. Set up tripod or flannelboard. Place the felt shapes on the bottom of the flannelboard. Set piles of shapes and construction paper on the activity table. As participants arrive, play the CD.

- Sing opening song: *Who's Here?*
- Read *Museum Shapes*. As the book is read, have a volunteer take the appropriate shape from the bottom of the flannelboard, and place it on the top of the flannelboard.
- Discussion adapted from *Circus Shapes* by Stuart J. Murphy, page, 32. Have a triangular and a square item handy. Look for these things around the room: clock, buttons, books, windows, etc. Ask which of these are circles, rectangles, squares and triangles.
- Sing: *This Old Man*.
- Read *Shape by Shape* by Suse MacDonald.
- Pass out rhythm sticks by age. Sing ending song: *Ten Little Hot Dogs*. Collect rhythm sticks by age.

Activity adapted from *Circus Shapes* by Stuart J. Murphy, page 32. Have children choose some circles, triangles, squares and rectangles from the piles. Bring the flannelboard to the activity table and make a snowman with the felt pieces. Have the kids make a snowman on the construction paper. Repeat with a house and an ice cream cone. Have the kids turn over the construction paper and make their own shape creations.

Materials:

Copies of *Museum Shapes* by The Metropolitan Museum of Art and *Shape by Shape* by Suse MacDonald for every participant and the librarian.

Museum Shapes flannelboard story.

Fun with Shapes worksheets (a sheet for each child).

Large sticker shapes if needed. (The foam shapes are for week 9.)

Counting song CD such as *Wee Sing & Learn 123* CD by Pamela Conn Beall or *Favorite Counting Songs* by Baby Genius.

Triangular item, such as a musical triangle.

Square item, such as a box.

Round item such as a tape roll.

Construction paper (several sheets for each child).

Mathstart books from the collection (for display).

Other books on shapes from the collection (for display).

Preschool Math Songs handouts.

One-page *Mathstart* books handouts (printed from website).

Other books on shapes: *The Shape of Things* by Dayle Ann Dodds; *Circus Shapes* by Stuart J. Murphy, *Shapes* by Aaron Carr; *Ship Shapes* by Stella Blackstone.

WEEK 6: NUMBER ORDER

Preparation (a week before the program): Collect the materials needed (below). Create or copy score board, number line and score cards described in *Curious George: Home Run*. Copy, laminate and cut the strips of animals on the last page of *Over in the Arctic Where the Cold Wind Blows*. Place round circles of tape to the back of each laminated strip. Make a photocopy of the children lined up on page 27 of *One Two Three Sassafrass* for each child. Vertically cut the children and their numbers into strips. Place each set in an envelope with 8 small post-its. (Keep durable materials in the program bag.)

Preparation (just before the program): Set out display books; Preschool Math Songs handouts; one-page *Mathstart* books handouts. Set up activity table with photocopies from *One Two Three Sassafrass*, small post-its and markers. Set up tripod or flannelboard and flannelboard. Tape on the score board and number line. Put two piles of score cards numbered 1 to 10 in blue and red in order. As participants arrive, play CD.

- Sing opening song: *Who's Here?*
- Read *Curious George: Home Run* adaptation by Erica Zappy.
- Activity (from *Curious George Home Run*): Tape the score cards on the board for each inning. Ask: *Does [3] or [4] come first [pointing to the numbers on the number line]. So...Which team is winning? The red team or the blue team?*
- Sing: *This Old Man*.
- Read *Over in the Arctic Where the Cold Wind Blows* by Marianne Berkes, placing laminated animal strips on the flannelboard during reading. Mix the strips up on the flannelboard. Ask: *Which number comes first?* Put the strips back in order.
- Pass out rhythm sticks by age. Sing ending song: *Ten Little Hot Dogs*. Collect the rhythm sticks.
- Read *One Two Three Sassafrass* by Stuart J. Murphy. Go to the activity tables.

Activity: Hand out the envelopes. Have children remove the strips from *One Two Three Sassafrass* and put them in order. Have children write the ages of the children on small post-it notes. Have children place the post-its onto the photocopies in the appropriate places. Have them write their age and make a small drawing of their faces on another post-it. Have them place their post-it in the correct space on the table. Children can take home the strips, post-its, and envelopes.

Materials:

Copies of *Curious George: Home Run* adaptation by Erica Zappy, *Over in the Arctic Where the Cold Wind Blows* by Marianne Berkes, and *One Two Three Sassafrass* by Stuart J. Murphy for every participant and the librarian.

Counting song CD such as *Wee Sing & Learn 123* CD by Pamela Conn Beall or *Favorite Counting Songs* by Baby Genius.

CD Player.

Flannelboard.

Mathstart books from the collection (for display).

Other books on number order from the collection (for display).

Rhythm sticks.

A copy of the children lined up on page 27 of *One Two Three Sassafrass* for each child.

8 small post-it notes for each participant.

Markers for each participant.

Paper score board, score cards and number line.

Tape.

Preschool Math Songs handouts.

Other books on number order: *Over in the Meadow* by Olive Wadsworth and *About Numbers* by Richard L. Allington.

WEEK 7: PATTERNS

Preparation (a week before the program): collect the materials needed (below).

Just before the program: Set out display books; Preschool Math Songs handouts; and one-page *Mathstart* books handouts. Set up the activity table with a handful of assorted pom poms, alphabet and number foam pieces, assorted stickers, crayons and construction paper. Set up story table with books and cars. Set up the flannelboard. As participants arrive, play CD.

- Sing opening song: *Who's Here?*
- Read *Beep Beep, Vroom Vroom!* by Stuart J. Murphy. Place toy cars on the table as indicated by the book.
- Sing: *This Old Man*.
- Read *A-B-A-B-A : A Book of Pattern Play* by Brian P. Cleary .
- Hand out rhythm sticks.
- Say: *Let's make a pattern with our with rhythm sticks*. Hit them together twice, then on the ground twice until the whole group joins in. Sing *10 Little Hot Dogs*.
- Collect rhythm sticks by age.

Activity: Place miscellaneous items on the table, and have kids make patterns. Suggested items: alphabet and number foam pieces, assorted stickers, crayons, and pom poms.

Materials:

Copies of *Beep Beep, Vroom Vroom!* by Stuart J. Murphy and *A-B-A-B-A: A Book of Pattern Play* by Brian P. Cleary for each child and the instructor.

Counting song CD such as *Wee Sing & Learn 123* CD by Pamela Conn Beall or *Favorite Counting Songs* by Baby Genius.

CD Player.

Mathstart books from the collection (for display).

Rhythm sticks.

Toy cars, 4 each of yellow, blue and red.

Pom poms (assorted colors and sizes, a handful for each child).

Alphabet and number foam pieces.

Assorted stickers.

Crayons.

Construction paper.

Other books on patterns: *Busy Bugs: A Book About Patterns* by Jayne Harvey; *Patterns* by Lori Capote; *Lots and Lots of Zebra Stripes: Patterns in Nature* written and photographed by Stephen R. Swinburne; *Patterning* by Minta Berry; *Pattern Fish* by Trudy Harris; *Pattern Bugs* by Trudy Harris ; *Patterns* by Sara Pistoia; *The "M&M's" Brand Color Pattern Book* by Barbara Barbieri McGrath.

WEEK 8: FEWER, SAME, MORE

Preparation (a week before the program): Collect the materials needed (below). Cut colored construction paper into squares. Make a flannelboard (make color copies, laminate, cut out, and apply felt to the back) of the characters from *Splash*. Make a large flannel pond. (Keep these in the program bag.)

Just before the program, set out display books; Preschool Math Songs handouts; one-page *Mathstart* books handouts. Set up the table or chair with measuring worms, miniature toy carrots and peanuts hidden in a bag or basket. Set up the each seat with a pile of 10 pennies, 3 squares of colored construction paper, an envelope and crayons. Set up the flannelboard as the characters appear on the first page of the book. As participants arrive, play the CD.

Conduct program:

- Sing opening song: *Who's Here?*
- Read *Just Enough Carrots* by Stuart J. Murphy. After reading each fewer/same/more page, pull out sets of carrots, peanuts and measuring worms (all the same size) to reinforce the concept. (Keep the items hidden in a bag or basket until they are used.) For instance, say: *Here are our carrots.* Display a set of 2, then pull up a set of 6. Point to the set of 6. Say: *Is this more, the same amount or fewer?* Put the set of 6 back. Display another set of 2. Say: *Is this more, the same amount or fewer?* Put the set of 2 back. Display 1. Say: *Is this more, the same amount or fewer?*
- Sing: *This Old Man.*
- Read *Splash* by Ann Jonas, with the book pointed toward you so that the children will focus on the flannelboard. Move the animals as indicated by the text. Ask: *How many are in my pond? Are there more, the same amount or fewer in the pond?* Review how many jumped in and climbed out first as the book becomes more complex. Count them together. Don't mention the bird. Turn the book around on the last page and read: *My dog is sad, my cat is mad. I feed my fish. The end.*
- Hand out rhythm sticks.
- Say... *Let's make another pattern with our with rhythm sticks.* Make a pattern and repeat until the whole group joins in. Sing *10 Little Hot Dogs.*
- Collect rhythm sticks by age.

Conduct activity:

Place a set of 10 pennies for each participant on a yellow square of construction paper.

Ask each child to take 1 penny and put it on a blue square.

Ask the children to take 2 more pennies and put them on a red square.

Say: *Point to the square that has more pennies.*

Ask the children to take another penny and put it with the single penny.

Ask: *Which square has more pennies?* (They are the same.)

Ask the children to take another penny and put it on the blue square.

Say: *Point to the square that has fewer pennies.*

Ask the children to take a penny from the set that has more pennies, and put it back in the middle.

Ask: *Which square has more pennies?* (They are the same again.)

Ask the children to take away another penny from either pile.

Say: *Point to the square that has more pennies.*

Let each child keep the last "lucky" penny to take home. Have them write their names on the envelopes, put the penny in, and seal.

Materials:

Copies of *Just Enough Carrots* by Stuart J. Murphy for every participant and the librarian.

Copies of *Splash* by Ann Jonas for every participant and the librarian.

Flannelboard of *Splash*.

Counting song CD such as *Wee Sing & Learn 123* CD by Pamela Conn Beall or *Favorite Counting Songs* by Baby Genius.

CD Player.

Mathstart books from the collection (for display).

Other books on more/less from the collection (for display).

Preschool Math Songs handouts.

Large toy measuring worms, carrots and peanuts.

Bag or basket for peanuts, carrots and counting worms.

Bag of 300 pennies (6 rolls).

27 small envelopes to take pennies home.

The squares of colored construction paper (yellow, blue, red) for each participant.

Notes: Great books for display include *More, Fewer, Less* by Tana Hoban; *Counting* by Karina Law; *More or Less: a Rain Forest Counting Book* by Rebecca Fjelland Davis; *More Bugs? Less Bugs?* by Don L. Curry; *More Than, Less Than* by Joanne Mattern; *Splash* by Ann Jonas; *Monster Knows More Than, Less Than* by Lori Capote,

WEEK 9: PAIRS & MATCHING

Preparation (a week before the program):

- Collect the materials needed (below).
- Divide a large set of multicolor shape stickers into exact pairs (same shape, size, color). Put 6 matching pairs in a plastic bag for each child. Put the unmatched remaining stickers into bowls.

The first time the program is conducted:

- Copy pages 22 and 23 from *Little Rabbit's First Number Book* by Alan Baker. Laminate and cut out the socks and shoes. (Use two of each pages if necessary to have a set for each child.) Attach velcro or flannel to the back.
- Enlarge, laminate and cut out images from *Match!* By National Geographic Little Kids. Attach velcro to the back.

Place these in the program bag.

Just before the program: Set out display books; Preschool Math Songs handouts; and one-page *Mathstart* books handouts. Set up the flannelboard with socks and shoes, making sure that there is a match for each item placed on the board. Set up the activity table with shape bags, bowls of shapes and construction paper. As participants arrive, play CD.

- Sing opening song: *Who's Here?*
- Say: *Today we are going have fun with pairs. Let's see what we mean by 'pairs'.* Read pages 4-7 of *How Many is a Pair?* by Ted R. Schaefer. Ask: *What else comes in pairs?* (For instance, shoes--yes. Nose, head--no.) *Why are they a pair? Do they look alike?*
- Read *A Pair of Socks* by Stuart J. Murphy. After reading each page, point to the illustrations and ask questions such as... *How are these socks the same? How are they different?*
- Activity (from *Little Rabbit's First Number Book* by Alan Baker). Place one of each pair of socks and shoes on the flannelboard. Have the children come up to the flannelboard (one at a time). Hand them a sock or shoe and have them place it on the flannelboard beside its match.
- Sing: *This Old Man.*
- Read *Match!* By National Geographic Little Kids. Hold the book toward you. As you read each page, place the images being matched on the flannelboard. For larger groups, ask children how to move the pieces. For smaller groups, allow the children to move the pieces on the flannelboard to create pairs.
- Hand out rhythm sticks.
- Say: *Let's make a pattern with our with rhythm sticks.* Make a pattern and repeat until the whole group joins in. Sing *10 Little Hot Dogs.*
- Collect rhythm sticks by age.

Activity: Each child should have a plastic bags containing 6 matching pairs of shape stickers. Have children apply stickers to construction paper in pairs. Then have children attempt to find pairs from the bowls, and place them on the construction paper. Ask each child (regarding their matches): *Are these the same color, shape or size?*

Materials:

Copies of *How Many is a Pair?* by Ted R. Schaefer, *A Pair of Socks* by Stuart J. Murphy, and *Match!* By National Geographic Little Kids for every child and the librarian.
Counting song CD such as *Wee Sing & Learn 123* CD by Pamela Conn Beall or *Favorite Counting Songs* by Baby Genius.

CD Player.

Flannelboard.

Mathstart books from the collection (for display).

Rhythm sticks.

Sock and shoe pairs for each child from *Little Rabbit's First Number Book*, p. 22 and 23.

Images cut-out from *Math!* By National Geographic Little Kids.

Velcro.

Large set of shape stickers divided into 6 pairs for each participant and unsorted.

Construction paper.

Other books on pairs and matching: *The Game of Mix and Match* by Harve Tullet; *Who's Like Me?* by Nicola Davies; *Apples & Oranges: Going Bananas with Pairs* by Sara Pinto; *Baby, Where Are You?* by Dinah Mack.

WEEK 10: SEQUENCING

Preparation (a week before the program): Collect the materials needed (below).

Just before the program, set out display books, Preschool Math Songs handouts and one-page *Mathstart* books handouts. Set up plush toys, vegetables and tripod or flannelboard in the story area. Tape approximately 12 feet of paper roll to one, long table or the wall. Put markers on activity table. As participants arrive, play CD.

- Sing opening song: *Who's Here?*
- From Childcraft Math Fundamentals Activity Card by Cindy Barden: Begin storytime by opening the book to the last page. When children point out that you are doing it wrong, pretend to be confused and ask them why it matters. Ask children what would happen if they went to storytime before they got dressed? What would happen if they washed the dishes before they ate a meal? What would happen if they took a bath before the water was in the tub? Is the order we do things important? Why? Ask children to name other things they need to do before they can do something else.
- Read *Rabbit's Pajama Party* by Stuart J. Murphy, using plush figures from Childcraft *Rabbit's Pajama Party Math Literacy Kit* if they are available in the library system.
- Sing: *This Old Man*
- Read *Growing Vegetable Soup* by Lois Ehlert. Display plastic carrots, tomato, green pepper, red pepper, onion, eggplant. Have children pretend to do the activities in the book. When it's time to put the vegetables into the water, have each child take one vegetable from the display, and put it into the pot.
- Hand out rhythm sticks.
- Say: *Let's make a pattern with our with rhythm sticks.* Make a pattern and repeat until the whole group joins in. Sing *10 Little Hot Dogs*.
- Collect rhythm sticks by age.

Activity from Childcraft Math Fundamentals Activity Card by Cindy Barden: As a group, make a timeline of a child's typical day. Start at the left of a 12 ft. paper roll, and write the words "Wake Up." Use phrases like "what do you do next" or "then what happens." Have children take turns naming other things they do during the day. After each child names the things they do, write their suggestions on the paper, then have them take a marker and draw a picture of that activity on the paper. Cut out the children's pictures for them to take home.

Materials:

Copies of *Rabbits Pajama Party* by Stuart J. Murphy for every participant and the librarian.

Copies of *Growing Vegetable Soup* by Lois Ehlert for every participant and the librarian.

Rabbits Pajama Party Math Literacy Kit (or just the book if the kit is unavailable).

Plastic carrots, tomato, green pepper, red pepper, garlic bulb, onion, eggplant, potato, etc. (one for each child).

Counting song CD such as *Wee Sing & Learn 123* CD by Pamela Conn Beall or *Favorite Counting Songs* by Baby Genius.

Large paper roll—approx. 12 ft. long.

Washable markers.

Scissors.

Mathstart books from the collection (for display).

Other books on sequencing from the collection (for display).

Preschool Math Songs handouts.

One-page *Mathstart* books handouts (printed from website).
Another book on time sequencing: *What Comes First* by Rob Olliges.

WEEK 11: SETS

Preparation (a week before the program):

- Gather cups, spoons, napkins and bowls.
- If necessary, cut craft stems into 5-6" pieces for bracelets.

Just before the program: Set out display books; Preschool Math Songs handouts; and one-page *Mathstart* books handouts. Set up story area, making sure there are just enough cups, spoons and bowls for each child. Set up the activity table with assorted buttons and craft stems. As participants arrive, play CD.

- Sing opening song: *Who's Here?*
- Read *Seaweed Soup* by Stuart J. Murphy.
- Activity: Have sets of cups, spoons, napkins and bowls for each child. Remove one spoon, two napkins and three bowls from each set. Hand out the items, alternating beginning at the front and the back. When you run out of spoons, napkins and bowls, ask: *How many more will they need so that everyone can have one?* Hand out that number so that everyone can have a complete set.
- Sing: *This Old Man*.
- Read *What Comes in Sets* by Minta Berry up to "Comparing Sets," p. 16.
- Hand out rhythm sticks.
- Say: *Let's make a pattern with our with rhythm sticks*. Make a pattern and repeat until the whole group joins in. Sing *10 Little Hot Dogs*.
- Collect rhythm sticks by age.

Activity: Ask children how they may want to sort buttons--size, color, shape. Let them sort buttons, to make a set. Go around and ask how many items are in each child's sets. Have children make craft stem bracelets with their sets.

Materials:

Copies of *Seaweed Soup* by Stuart J. Murphy and *What Comes in Sets* by Minta Berry for every participant. Counting song CD such as *Wee Sing & Learn 123* CD by Pamela Conn Beall or *Favorite Counting Songs* by Baby Genius.

CD Player.

Flannelboard.

Mathstart books from the collection (for display).

Rhythm sticks.

Cups, spoons, napkins and bowls for every participant.

Assorted buttons.

Several 6" craft stems for each child.

Other books on sets: *If You Were a Set* by Marcie Aboff; *Sorting and Sets* (Take Off With series) by Sally Hewitt; and *Sorting and Sets* by Henry Arthur Pluckrose.

WEEK 12: TIME (ON THE HOUR)

Preparation (a week before the program):

- Copy pages from *It's About Time!* by Stuart J. Murphy (7-wake up, 8-school, 12-lunch, 3-jump & run, 6-dinner, 8-lie down). Laminate and keep in program bag.
- Copy clock worksheets. Copy and cut pictures of analog clocks.
- Cut pictures into sets and paperclip.

Just before the program: Set out display books; Preschool Math Songs handouts; and one-page *Mathstart* books handouts. Set up books in story area. Tape copied pages of *It's About Time!* by Stuart J. Murphy to a wall. Set up the activity table with worksheets, markers and glue sticks. As participants arrive, play CD.

- Sing opening song: *Who's Here?*
- Introduce the concept of time with pages 18 and 20 of *Starting Off with Time* by Peter Patilla. Point out any clocks in the room.
- Read *It's About Time!* by Stuart J. Murphy .
- Activity: Go to stations where copies of *It's About Time!* by Stuart J. Murphy are taped to the wall.
- Sing: *This Old Man*.
- Read *Little Rabbits' First Time Book* by Alan Baker. Move the hands to the appropriate times as you read.
- Hand out rhythm sticks.
- Say: *Let's make another pattern with our with rhythm sticks*. Make a pattern and repeat until the whole group joins in. Sing *10 Little Hot Dogs*.
- Collect rhythm sticks by age.

Activity: Using the clock worksheet and analog clock cutouts, have kids paste the cut-out clock images onto the worksheet. Have children draw a pictures of what they do at each time of day.

Materials:

Copies of *Starting Off with Time* by Peter Patilla, *It's About Time!* by Stuart J. Murphy, and *Little Rabbits' First Time Book* by Alan Baker for every participant.

Glue sticks.

Colored markers.

Digital and analog clocks in the room.

Counting song CD such as *Wee Sing & Learn 123* CD by Pamela Conn Beall or *Favorite Counting Songs* by Baby Genius.

CD Player.

Flannelboard.

Mathstart books from the collection (for display).

Rhythm sticks.

Clock worksheets and analog clock cutouts.

Tape.

Other books on time (on the hour): *At the Park: Telling Time by the Hour* by Alice Proctor; *A Busy Day* by Brian Sargent; *Go! Go! Bobo Time* by Simon Basher; *All About Time* created by Gallimard Jeunesse; *Time* by Henry Pluckrose; *What Time Is It?* By Julie Haydon; *What Time Is It?* by Gladys Rosa-Mendoza.

CLOSING COMMENTS

Now that the program has concluded, we encourage you to check out one Mathstart book a week (beginning with the Level 1 books). Be sure to do at least one activity from the back of the book.

MATH SERIES FOR PRESCHOOLERS FOR LIBRARY COLLECTIONS

Mathsmart series by Stuart J. Murphy

Childcraft Math Fundamentals Kits by Childcraft Education Corporation.

My First Math by various authors *Geometry at Every Turn, Harvest Time, How Many Are There?, How Many is a Pair, How Much is It?, Parade of Arrays, Walk on Maps, What Comes First?*

My Path to Math by Crabtree Publishing Company

Little World Math Concepts by various authors

Various titles by Peter Patilla (including *Math Links*)

Exploring Math by Michele Koomen

Look & Learn by National Geographic Little Kids (Match, Opposites, Patterns, Count, Shapes)

Take Off With series by Sally Hewitt

Data Mania by Capstone Press

Math Counts by Henry Arthur Pluckrose

Math Around Us by Tracey Steffora

Yellow Umbrella Books by Capstone Press

Tiger Talk Number Fun Set by Karina Law

Sorting set by Jennifer L. Marks

Let's Explore by Henry Arthur Pluckrose