

EPK Math Small Group Activities by Content Area Session 3








Scaffolding children’s learning also includes purposefully
“encouraging children to describe their actions and explain their
reasoning, with thought-provoking comments such as ‘I wonder
what would happen if...’”.¹

¹ Meaningful Math in Preschool, Making Math Count Throughout the Day, p. 59







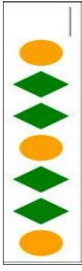
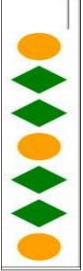
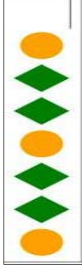
EPK Small Group Activities by Content Area, Session 3 – Overview

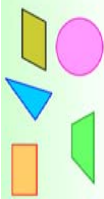









- Provided are 32 lessons in Session 3 which were extracted from the *Numbers Plus* kit, other HighScope resource books and team-developed lessons.
- The lessons have again been organized by Content Area.
 - To build mastery, children need to experience activities in the same Content Area several days in a row.
- Again, it is important that your lessons cover all five content areas in some way.
 - If you choose to use lessons other than these, be sure to cover all five content areas by the pausing point.
- You will be entering anecdotes for each child in each of these five content areas.

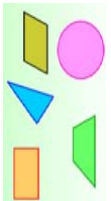
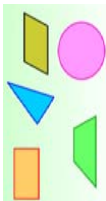







EPK Math Small Group Activities by Content Area-Session 3 - Aligned with KDI, COR Advantage and NYS Early Learning Guidelines


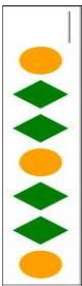



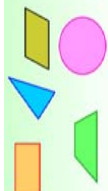

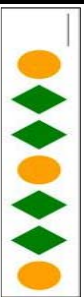





Small-Group Activities	Numbers and Counting	Geometry and Spatial Awareness	Measurement	Algebra/ Patterns and Sequences	Data Analysis
Session 3	(KDI 31, 32, 33)	(KDI 34, 35)	(KDI 36)	(KDI 38)	(KDI 39)
	COR Item S	COR Item T	COR Item U	COR Item V	COR Item W
** denotes that substitute materials may be needed due to choking hazards for certain children	NYS Early Learning Guidelines - Domain IV Cognition and General Knowledge: G. Number Sense and Operations P. 74	NYS Early Learning Guidelines - Domain IV Cognition and General Knowledge: I. Properties of Ordering: Children identify and label shapes P. 76	NYS Early Learning Guidelines - Domain IV Cognition and General Knowledge: H. Measurement: Children demonstrate knowledge of size, volume, height, weight, and length P. 75	NYS Early Learning Guidelines - Domain IV Cognition and General Knowledge: J. Properties of ordering: Children sort, classify, and organize objects P. 77	NYS Early Learning Guidelines - Domain IV Cognition and General Knowledge: K. Scientific Thinking: Children collect information through observation and manipulation P. 78
Number Plus Kit, Number Sense, Card 1, "Basket Toss"					
Number Plus Kit, Number Sense, Card 10, "Counting Shapes on a Pizza"					
Number Plus Kit, Number Sense, Card 12, "Dinosaur Hunt" **					
Number Plus Kit, Geometry, Card 5, "Feeling Shapes: Which Ones Match?"					
Number Plus Kit, Geometry, Card 12, "Shape Puzzles"					

EPK Math Small Group Activities by Content Area-Session 3 - Aligned with KDI, COR Advantage and NYS Early Learning Guidelines

Small-Group Activities Session 3	Numbers and Counting	Geometry and Spatial Awareness	Measurement	Algebra/ Patterns and Sequences	Data Analysis
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Number Plus Kit, Geometry, Card 14, "Pattern Block Critters"					
Number Plus Kit, Measurement, Card 19, "Skyscraper"					
Number Plus Kit, Measurement, Card 5, "Construction Zone: Height"					
Number Plus Kit, Measurement, Card 6, "Construction Zone: Width"					
Numbers Plus Kit, Algebra, Card 15 "Shape Caterpillars"					
Numbers Plus Kit, Algebra, Card 13 "Rhythm Stick Patterns"					
Numbers Plus Kit, Algebra, Card 10 "Movement Patterns"					

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Numbers Plus Kit, Data Analysis, Card 12 "Play Dough Snowmen"					
Numbers Plus Kit, Data Analysis, Card 10 "Laundry Lessons"					
I'm Older Than you I'm Five!, p. 44, "Guess Who"					
Numbers Plus Kit, Number Sense, Card 17 "Hickory Dickory Dock"					
Numbers Plus Kit, Number Sense, Card 26 "Numeral Hopscotch"					
Numbers Plus Kit, Number Sense, Card 27 "Numeral Hunt"					
Numbers Plus Kit, Number Sense, Card 34 "Ten in the Bed"					

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Numbers Plus Kit, Geometry, Card 12 "Musical Shapes"					
Numbers Plus Kit, Geometry, Card 8 "I Spy Shapes"					
Numbers Plus Kit, Measurement, Card 4 "Color Recipes"					
I'm Older Than you I'm Five!, p. 96, "Slicing Up the Daily Routine"					
I'm Older Than you I'm Five!, p. 99, "Snack Sort"					
Recipe: Silly Putty					
Small-Group Times to Scaffold Early Learning, p. 56 "How Much Does it Hold?"					

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Small-Group Times to Scaffold Early Learning, p. 72 "Strike up the Band?"					
Recipe: Fruit Crisp					
50 Large Group Activities for Active Learners, "The Noble Duke of York" p.102, Substitute scarves for dusters					
Recipe: Fruit Kabobs					
Animal Habitat Graphing Song; www.rcsdk12.org/prek/blocks					
Five Little Hot Dogs Song; www.rcsdk12.org/prek/blocks					
Noodle Plate Chant; www.rcsdk12.org/prek/blocks					

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First 30 Days, SGT, Unexplored Materials, p. 143					

Materials for Session 3

Text used	Small Group Activity	Materials to Order	Materials from Home
Numbers Plus Kit, Number Sense	Card 1, "Basket Toss"	Beanbags, Chart Paper labeled with children's name and letter link, Markers	Small containers to hold bean bags, Large basket
Numbers Plus Kit, Number Sense	Card 10, "Counting Shapes on a Pizza"	Collection of felt or plastic circles, triangles and rectangles, Rolling pins, Shape cookie Cutters	Play Dough
Numbers Plus Kit, Number Sense	Card 12, "Dinosaur Hunt"	Containers large enough to hold 10 dinos, 40-50 Small plastic dinosaur counters Choking Alert	
Numbers Plus Kit, Geometry	Card 5, "Feeling Shapes: Which Ones Match?"		2- sets of 3-4 tag board shapes (triangle, circle, rectangle) - put one shape in each feeling bag, 18 feeling bags (socks or paper bags)
Numbers Plus Kit, Geometry	Card 12, "Shape Puzzles"		Adaptation: Glue 18 pictures onto tag board (wonderful to use photos of student's faces). Then cut the tag board into 4 triangles (corner to corner), 18 zip lock storage bags for the puzzles
Numbers Plus Kit, Geometry	Card 14, "Pattern Block Critters"	5-8 pattern blocks for each child, 2-3 empty sorting baskets, Index cards,	Camera
Numbers Plus Kit, Measurement	Card 19, "Skyscraper"	10 small 1 inch cube blocks for each child	Pictures of skyscrapers
Numbers Plus Kit, Measurement	Card 5, "Construction Zone: Height"	15-20 duplo blocks for each student, chalk	2 sizes of drinking straws
Numbers Plus Kit, Measurement	Card 6, "Construction Zone: Width"	15-20 duplo blocks for each child, Chalk, Tape, Rulers, String, Pencils	2 sizes of drinking straws
Numbers Plus Kit, Algebra	Card 15, "Shape Caterpillars"	5-10 small construction paper circles for each child, 2-10 small construction paper rectangles for each child, Piece of construction paper, Glue sticks	

Materials for Session 3

Text used	Small Group Activity	Materials to Order	Materials from Home
Numbers Plus Kit, Algebra	Card 13, "Rhythm Stick Patterns"	Pair of rhythm sticks for each child, 2 different colored blocks for each child	
Numbers Plus Kit, Algebra	Card 10, "Movement Patterns"	none	none
Numbers Plus Kit, Data Analysis	Card 12, "Play Dough Snowmen"	3 cookie cutters in different shapes (triangle, rectangle, circle), Chart paper, Small paper triangles, rectangle and circles (25 of each shape)	Play dough-enough for each child to have a large ball, Plastic knives
Numbers Plus Kit, Data Analysis	Card 10, "Laundry Lessons"	Drying rack or clothes line, Clothes pins	Basket of clothing for dolls and some dress-up clothing, water table that will accommodate a small group OR small wash tubs for 2
I'm Older Than You. I'm Five!" Math in the Preschool Classroom	15-Guess Who Lesson, page 44	Photos of children in your classroom for an extension	none
Numbers Plus Kit, Number Sense	Card 17, "Hickory Dickory Dock"		Sheets of 8 1/2 by 11 inch paper on which a numeral from 1-5 is written (enough for every child to have one and then a teacher set)
Numbers Plus Kit, Number Sense	Card 26, "Numeral Hopscotch"	Tape or chalk to make a hopscotch board on the carpet or floor	15 small dot-and-number cards for numerals 1-5 (3 cards for each numeral)
Numbers Plus Kit, Number Sense	Card 27, "Numeral Hunt"	Index cards	Paper lunch bags-one for each child and then 5 more, Numerals 1-5 written on index cards(at least 15 of each number),
Numbers Plus Kit, Number Sense	Card 34 "Ten in the Bed"	None	10 small carpet squares or mats. You could also use pieces of construction paper or pillows

Materials for Session 3

Text used	Small Group Activity	Materials to Order	Materials from Home
Numbers Plus Kit, Geometry	Card 12 "Musical Shapes"	CD player, CD with lively marching music	Large geometric shapes (circle, rectangle, triangle) cut out of heavy paper arranged in a circle on the floor
Numbers Plus Kit, Geometry Card 8 "I Spy Shapes"	Card 8 "I Spy Shapes"	none	Collection of felt circles, rectangles, and triangles
Numbers Plus Kit, Measurement Card 4 "Color Recipes"	Card 4 "Color Recipes"	Teaspoons or Tablespoons, 3 white pieces of paper or clear plastic cups, popsicle sticks, 3-5 index cards, Pencil, Crayons, Measuring Spoons	3 buckets of colored water (red, blue, yellow), Large tube for emptying mixtures
"I'm Older Than You. I'm Five!" Math in the Preschool Classroom	40-Slicing Up the Daily Routine, page 96	Daily routine cards	
"I'm Older Than You. I'm Five!" Math in the Preschool Classroom	41- Snack Sort, page 99	Chart paper, markers	Mixed snack items, Serving containers
Scope and Sequence Binder, Session 3	Recipe: Silly Putty	Gallon of Elmer's Glue	1 quart of Liquid Starch
Small-Group Time to Scaffold Early Learning	19-How Much Does it Hold?, page 56	Turkey Basters, Measuring cups or sponges, Paper, Markers, Smocks, Markers, Measuring cups	Plastic cups, Other small containers
Small-Group Time to Scaffold Early Learning	25-Strike up the Band, page 72	Various instruments, Containers to hold instruments	Picture cues for loud or soft, Other things that can be used to make a noise
Scope and Sequence Binder, Session 3	Recipe: Fruit Kabobs		Two kinds of fruit, kabob sticks
	Animal Habitat Graphing Song		Song card from: https://www.rcsdk12.org/Page/630
	Five Little Hot Dogs Song		Song card from: https://www.rcsdk12.org/Page/630

Materials for Session 3

Text used	Small Group Activity	Materials to Order	Alternative Materials
Numbers Plus Kit, Number Sense	Card 1, "Basket Toss"	Beanbags	Example: Wadded paper balls
Numbers Plus Kit, Number Sense	Card 10, "Counting Shapes on a Pizza"	Rolling pins and shape cookie cutters	
Numbers Plus Kit, Number Sense	Card 12, "Dinosaur Hunt"	40 - 50 Small Plastic dinosaurs	
Numbers Plus Kit, Geometry	Card 14, "Pattern Block Critters"	5-8 pattern blocks for each child	
Numbers Plus Kit, Measurement	Card 19, "Skyscraper"	10 small 1 inch cube blocks for each child	
Numbers Plus Kit, Measurement	Card 5, "Construction Zone: Height"	15-20 duplo blocks for each student, chalk	

Materials for Session 3

Text used	Small Group Activity	Materials to Order	Alternative Materials
Numbers Plus Kit, Algebra	Card 13, "Rhythm Stick Patterns"	2 different colored blocks for each child	
Numbers Plus Kit, Data Analysis	Card 12, "Play Dough Snowmen"	3 cookie cutters in different shapes (triangle, rectangle, circle)	
Numbers Plus Kit, Data Analysis	Card 10, "Laundry Lessons"	Drying rack or clothes line, Clothes pins	
Small-Group Time to Scaffold Early Learning	19-How Much Does it Hold?, page 56	Turkey Basters, Measuring cups or sponges	

Small Group Time: Silly Putty

NYS Foundations for the Common CORE or Early Learning Guidelines: Domain(s) Domain IV, H-Measurement, L-Scientific Thinking KDI: 36 and 45 COR: BB. Observing and classifying, U. Measurement Lesson Objective: Measuring and Comparing changes in matter	
Target Vocabulary	Liquid Solid Stretch Measure Long Short
Materials	Elmer's Glue StaFlo Liquid Starch (must be this brand) Popsicle or craft sticks 20 Small cups or containers Storage bag or container ¼ cup measuring cup ½ cup measuring cup
Opening Statement	Today we are going to combine two liquids (things that we can pour) and see what happens.
Beginning	Have the children measure out 1/2 cup of white Elmer's glue and pour it into their container. Support children measuring out a ¼ cup StaFlo Liquid Starch. Have them use their sticks to stir and talk about the change that happens.
Middle <i>Your ideas for scaffolding children at different developmental levels</i>	When it's formed, take it out of the cup and shape it with your hands. Children can stretch it and shape it. Talk about the length as they stretch the putty. As an extension, children can use markers and color on the putty. Children can then stretch it and talk about what they observe.
Questions	Which did we add more of the, the glue or starch? How did you know that? What happened to the glue and starch when we began to stir? How does it feel? What could we use with the putty?
End <i>warning and transition to next part of routine</i>	Place in a clear, plastic, resalable container or bag when you're finished using it. <u>Safety warning:</u> though Elmer's is non-toxic, liquid starch, such as StaFlo, shouldn't be consumed.
Follow-Up	Add the putty to your art area. Have glitter and scissors available for further extension activities.

Apple Pie in a Cup

Ingredients:

Apples
Cinnamon
Sugar
Graham
Crackers
Whipped Cream



Directions:

1. Cut up apples and sprinkle with cinnamon and sugar.
2. Place in crockpot to cook on low for two hours.
3. Crush up graham crackers and put them in the bottom of the cup.
4. Put one scoop of apples on top of the graham crackers.
5. Add whipped cream on top.
6. Eat and enjoy 😊

Small Group Time: Fruit Kabob

<p>NYS Foundations for the Common CORE or Early Learning Guidelines: Domain(s) IV Cognition and General Knowledge, B. Critical and Analytic Thinking, J. Properties of Ordering, K. Scientific Thinking KDI:17,35,38 COR: B. Problem-solving with materials, J. Fine motor skills, V. Patterns</p>	
Target Vocabulary	Kabob Skewer Fruit names chosen Pattern Choose Start Next Repeat
Materials	Visual recipe card Small bowls for fruit; spoons Paper plates or trays for each child Skewers (may use coffee stirrs) Choose fruit sturdy enough to place on skewer Examples: choice of two for AB pattern Seedless Grapes Strawberries (sliced in medallions) Blueberries Melon Pineapple
Opening Statement	Today we are going to make something very special! Hold up the skewer and show the fruit.
Beginning	Let's first wash our hands. Review and display the recipe card and ingredients. Explain that the tray or paper plate is their workspace. Today we are going to make a pattern. Let me show you. First I take the skewer and look for the pointy end. Now I'm going to choose two fruits. First, I'm going to take one grape and place it on the skewer. What do you think I'm going to do next? Yes, I'm going to choose another fruit and put it on the skewer. Place the second fruit on the skewer. Together you repeat the pattern Grape, strawberry. Hmm... What do you think comes next? Repeat grape ...strawberry ... grape... strawberry. I made a pattern! Now it's your turn to make one. Let's get started!

Middle <i>Your ideas for scaffolding children at different developmental levels</i>	<p>Pass out to each child the skewer and their own bowl of fruits and place in their workspace.</p> <p>I wonder which fruit you will start with? Guide the children with each step. Which fruit will you put on the skewer next? Observe what fruit the children chooses. Give the children the opportunity to continue at their own developmental level.</p> <p>Remember to note COR Advantage Item V with anecdotes.</p>
Questions/Comments	<p>I wonder which fruit will come next?</p> <p>Tell me about your fruit pattern...</p> <p>Let me try out your pattern...</p> <p>Oh, I see you lined up all the grapes one after another...</p> <p>Look you made a pattern Grape...Strawberry...</p>
End <i>warning and transition to next part of routine</i>	<p>You all worked very hard today making a pattern! Using your example pattern, have each child repeat the pattern and then dismiss to wash hands. It is your choice to save the kabob for snack or allow them to eat their pattern before transitioning to the nexy activity.</p>
Follow-Up	<p>Learning patterns requires a lot of repetition. Have available pattern materials thorough out the day. Example: In the block area, align the unit blocks, square...rectangle during worktime. At transistion, lining up boy...girl...boy...girl</p> <p>You may also do a Data analysis component, What is your favorite fruit?</p>

RECIPE CARD FOR FRUIT KABOB



1. ●

Wash your hands
and select a
skewer.



2. ● ●

Put on a strawberry.



3. ● ● ●

Put on a slice of
banana.



4. ● ● ● ●

Repeat your pattern,
strawberry-banana.

RECIPE CARD FOR FRUIT KABOB



5. ● ● ● ● ●

Eat and enjoy your
pattern.

Animal Habitat (Graphing Song)

Tune: “Mary had a Little Lamb”

Directions: Cut out the labeled pictures on the pages below. Make a graph by putting the words and pictures of “Farm” and “Jungle” on construction paper or flannel board. Place animal pictures under correct column as you sing the song.

COR Advantage: W – Data Analysis, Y – Music, BB – Observing and Classifying, DD – Natural and Physical World, HH - History

Some animals live on a farm, on a farm, on a farm.

Some animals live on a farm, can you guess which ones!

Some animals live in the jungle, in the jungle, in the jungle,

Some animals live in the jungle, can you guess which ones!

Child choose an animal from the pile, and group decides where it lives and what sound it makes, i.e.:

Cows live on a farm, on a farm, on a farm,

Cows live on a farm, and they say, “mooooo.”

Gorillas live in the jungle, in the jungle, in the jungle,

Gorillas live in the jungle, they say “eeh eeh eeh.”

(continue with other animals)

Jungle



Farm

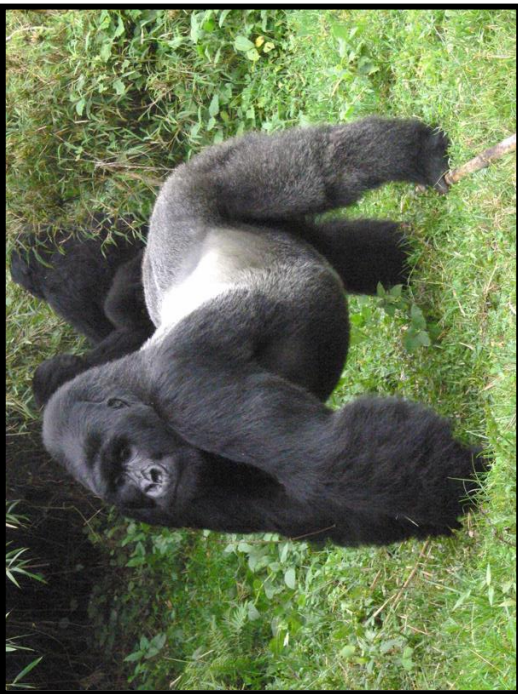




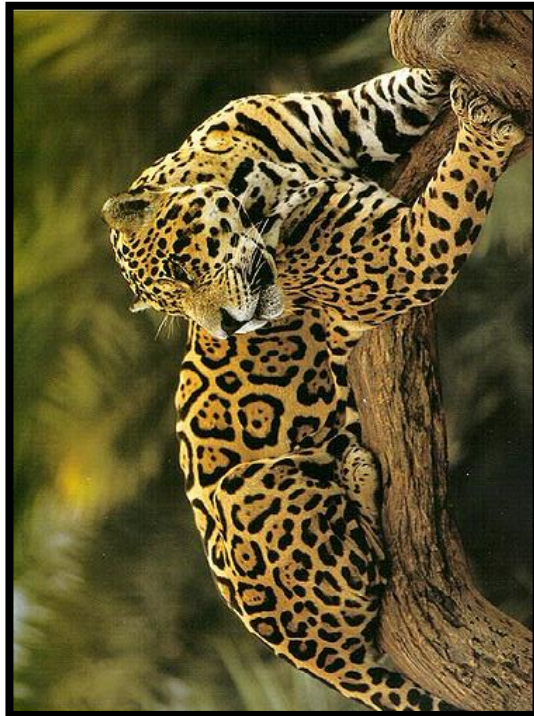
Elephant



Tiger



Gorilla



Jaguar



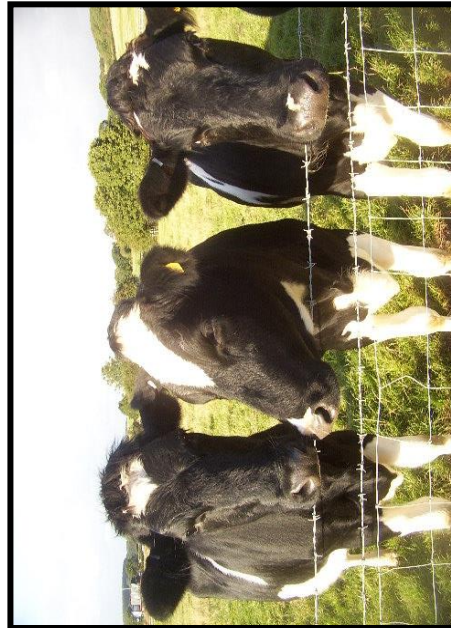
Pigs



Chickens



Horses



Cows

5 Little Hot Dogs (or Sausages!)

Finger play - Chant rhythmically

You can cut out the hot dogs and put them into a pan from the family center or Velcro them onto the frying pan!

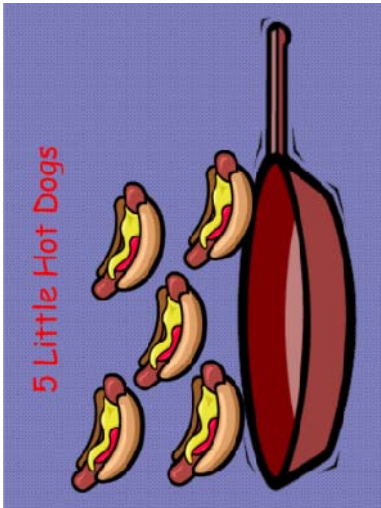
5 little hot dogs sizzling in the pan, *(show 5 fingers then rub hands together,)*
The pan got hot and one went “BAM!” *(clap hands on “Bam”)*

(continue with 4 little hot dogs, etc., ending with:

No little hot dogs sizzlin’ in the pan,
The pan hot hot and IT went BAM!

Now have children choose other foods to put in the frying pan. Remember, nothing is off limits - We have even fried strawberries!

5 Little Hot Dogs
(or Sausages!)



Cut-outs to use in a frying pan or Velcro onto song card, taking one off at a time!



Noodle Plate Chant (no melody)

Origin unknown

Take a paper plate and cut out five holes as shown. Stick fingers in the holes to match number of noodles in the rhyme. After children learn the chant, they can choose other foods besides noodles, i.e. hot dog, pickle; they can also choose other condiments, i.e. mustard and catsup; Children also might choose to change “mother” to another person who shops in their family. Listen to children talking about their own experiences with various foods. Draw attention to the rhyming words in the phrases.



COR Advantage: J – Fine motor skills, L – Speaking, N – Phonological awareness, S – Numbers and Counting, Y – Music, FF – Knowledge of self and others

One little noodle (Stick one finger through hole)
 On my plate,
 Salt and pepper, (Pretend to shake papper on it with other hand)
 Tastes just great!
 Mother’s going to the store.
 Mother, mother, get some more.

Continue with Two...Three...Four..., then end with the following:

Five little noodles (Hold up five fingers)
 On my plate.
 Salt and pepper, (Pretend to shake pepper)
 Tastes just great.
 Mother, mother, I am stuffed.
 I think that I have had enough!

Small Group Time Planning Form

NYS Foundations for the Common CORE or Early Learning Guidelines: Domain(s) KDI: COR: Lesson Objective:	
Target Vocabulary	
Materials	
Opening Statement	
Beginning	
Middle <i>Your ideas for scaffolding children at different developmental levels</i>	
Questions	
End <i>warning and transition to next part of routine</i>	
Follow-Up	

