Teachers' Guide

part 2

Education Development Center
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Hello, Educators!

We'd like to say thank you again for participating in the Ready to Learn study and for using the Math Curriculum Supplement! We hope you've found your integration of the curriculum thus far to be both meaningful and successful. Please remember to continue to let your coaches know if you require replacement materials, assistance with completing your Teacher's Logs, or any other support in the classroom.

Enclosed is Part 2 of the Teachers' Guide, which includes scripts, instructions, and reminders for Week 6 through Week 10 of the curriculum supplement. The weeks presented in this guide contain detailed information in the same format that you are now familiar with from Weeks 1 through 5.

Thank you again for your participation!

The *Ready to Learn* Team

Using this guide

We have divided this guide into weekly units (10), each of which provides one or two activities for you to undertake each day of the week. Each activity is titled with some or all of the following information.

Activity Group
Activity Name (if applicable)
(minutes / approach)

Materials Required

Introductory Activity with Visuals

What is a Detective?

(25 minutes/ Whole Class)

Materials:

Chart paper
Marker
Small teacher 0-10 number line
Math Detective Journal

or

Activity Group

Math Detective Journal with Easy Game Play

(15 minutes/ Small Group)

Materials:

Math Detective Journals
Teacher Journal pages 2.1- 2.2
Dry erase board
Dry erase markers
Crayons

Math Detective Journal ← Activity name

Short scripts are provided to help you lead students through the activities.

- **What you say** to the class is displayed in large type and marked with “.
- **What you do** is displayed by smaller text to the right.
- **How students might respond** is italicized to the right.

What you say	What you do
“ We're going to be detectives? Do you know what a detective does?	Wait for students to respond yes. Encourage by nodding your head yes.
“ We are going to be math detectives, and we are going to be looking for information about math—what kinds of things do you think we'll find?	Point to each shape on the screen and encourage (or help) all children to name each one.
“ What shape is that? Do you think there is a number that has that same shape? What is it?	*Zero, "o," circle.*

Finally, background information on activities and computer games are provided in callout boxes.

Callout Boxes

Game Description:

NUMBO (2–5)

Partners take turns in this alternate version of the game BINGO. One child will select a number from the bag and say the number chosen out loud to their partner. The other child will find this number on their NUMBO card and will cover it with a cover card. When the entire board is covered with cards, the game is won. The partners then switch roles and play again.

Week 6 Green Week

Full Implementation Week

Objectives

Counting	• Children will learn to count numbers to 12 • Children will learn to locate and count numbers on a number line • Children will learn to compare two quantities
Shape	• Children will identify, compare and describe triangles, rectangles, squares, circles, semi-circles, pentagons and trapezoids • Children will learn about what corners (angles) and curves are when identifying different shapes
Number Recognition	• Children will identify numbers to 10
Pattern	• Children will learn to create their own simple AB, AABB and ABB patterns

Day 1

Introductory Activity with Visuals

More about Shapes

(25 minutes/ Whole Class)

Materials:

Chart paper
Marker
Unifix cubes
Two different types of stickers

“ Ok math detectives, today we are going to work with shapes - triangles, rectangles, squares, circles and semi-circles. You are all going to be detectives and you will have to search for the sides and corners of the shapes.	On the chart paper, draw a large example of each shape: triangle, rectangle, square, circle, and semi-circle writing the name of each underneath. Say the name of each shape out loud, and ask the children to repeat the shape names.
“ What is a side of a shape?	Using the rectangle as the example, point to one of its sides. Explain that a side of a shape is a straight line that helps to define its shape. Then mark the side of the rectangle with one type of sticker.
“ What is a corner or angle of a shape?	Again using the rectangle as an example, point to one corner (angle) of the rectangle. Describe that a corner (angle) of a shape is where two lines come together on a shape. Model marking a corner (angle) of the rectangle with a different type of sticker. Using the shapes drawn on the chart paper and the same stickers used to identify corners (angles) and sides on the rectangle. 1. Call children up one by one, handing each a sticker to put on the various corners (angles) and sides of each shape. 2. Call out if the children are labeling a corner (angle) or a side. 3. Be sure to use the same stickers for the corners (angles) and a different kind of sticker for the sides. 4. Count how many corners and how many sides each shape has. 5. Note: The circle and semi-circle will not have any stickers.
“ What is this shape called? The one with no stickers?	Point to the circle.
“ How about this shape, also with no stickers?	Point to the semi-circle; if the children say half-circle then ask a follow up question such as….

Day 1

“ Do you know what another name for a half-circle is? It’s called a semi-circle. “Semi” can mean part or half, so semi-circle means part of a circle or half of a circle.	Discuss how a semi-circle is different from a circle and how it is like a circle. Encourage children to practice saying the word semi-circle.
“ That was a lot of good math detecting of shapes! Let’s finish by being number Math Detectives! I’d like you to figure out what number I’m thinking of!	The number you are going to describe is 16.
“ I’m thinking of a number that is made up of 2 different numerals.	Draw 2 spaces on the chart paper indicating where the numerals belong.
“ The first numeral is less than the number 2.	When the children guess the correct numeral, fill it in on the first space.
“ The second numeral is more than 5.	When the children guess the second numeral, fill it in on the second space; or if children need more guidance to guess the number, offer another hint such as…
“ The number is a teen number that is between 15 and 17. “ That’s right! I’m thinking of the number 16. Let’s count up to 16 using our unifix cubes.	Hand each child a unifix cube, and call them up one by one to make a tall tower while all children count together up to the number 16.

Hands-On Center Activities

Pattern Concentration

(10 minutes/Pairs of children)

Materials:

Pattern Concentration cards (2 sets)

“ Do you remember what we said a pattern was? Can you use clapping to make a pattern?	Allow children a moment to respond, and then clap a pattern for the children to imitate.

Day 1

“ Now we’re going to play a game called Pattern Concentration. Everyone will get cards with patterns on them. When it is your turn, turn over any two cards so that the patterns are facing up and look at the cards very closely. Then think about if the patterns on your two cards match each other.	Model putting the cards face down on the table and then turn over two cards.
“ If you find a match you can keep the pair with you until the end of the game. If you turn over two cards that don’t match, turn them back over so that the pattern is face down, but try and remember where that card is for your next turn. Now it is your partner’s turn.	Model finding a pair that matches and a pair that doesn’t match.

Hands-On Center Activities

Missing Numbers

(10 minutes/Pairs of children)

Materials:

Student 0 – 10 number line (2)
Student 0 – 10 number lines with missing numbers (4 different number lines; 2 sets)
Tiny number cards to put on number line (4 sets)

“ What I am holding up here is our number line. Do you remember that a number line is a line of numbers that start at the smallest amount, and goes up to the largest amount? This number line starts at Zero, and goes all the way up to 10. Let’s read this number line out loud.	Point to 0, and 10 and all of the numbers as you count out loud.
“ But the number lines that I have here are missing some numbers. You are going to work together to fill in the missing numbers with these small cards.	Model using the tiny number cards to replace the missing number on one of the number lines. Model using the full (complete) number line to help decide which number is missing.

Review Games that can also be available during this time.

Next? | The Number Tree | Numbo (1-20)

Pattern Match AB and ABB | Which Has More? (0-10)

Shape Zap | Pattern Match AB | Go Fish (1-9) | Numbo (0-5)

Day 2

Guided Challenge Game Play

(25 minutes/ Whole Class)

Materials:

Shape Concentration cards
Square sign
Rectangle sign
Trapezoid sign
Pentagon sign
Chart paper
Marker

Game Description:

All Shape Concentration

In pairs, players arrange shape cards randomly, face down on the table, in rows and columns. Each takes a turn turning over any two cards so that two shapes are facing up. Players say the name of each shape out loud deciding if there is a match. Two cards that don't match are turned back over so that the shapes are face down again, but players try and remember where the shapes are located for next turns. When a player turns over two cards that match, she adds them to her pile. The player with the most cards wins the game.

- " Today we are going to play a math game you may have played before in one of our centers. Similar to the last time, I will show you how to play the game. Later, you will have the chance to play this same game, with a partner during center time.
- " Today's game is called "All Shape Concentration." It is a game about shapes – all of the shapes we've learned so far. As I show you how the game is played please watch carefully so you'll know what to do when you play with a partner during center time. Some of you will have a chance to try out the game now with a partner.
- " Okay, so the name of this game is "All Shape Concentration". What does it mean to concentrate?

Allow a moment for children to respond.

Day 2

“ When you concentrate, it means that your brain is working really hard on one thing. We've played a concentration game before, where we had to match two of the same shapes. Some of you may even have played pattern concentration where you had to match two of the same pattern. One of the things we had to do when we played those games was to pay attention to what was on the cards as we turned them over to see if they matched, or to remember where a card that we turned over was.	
“ This game will help you remember the names of shapes and how those shapes look. Let's see if you can name the shapes that are used in this game.	Show children the shape signs (square, rectangle, trapezoid, and pentagon) and name each of the shapes as you show them. Be sure to have children say the name of the shapes out loud.
“ Now I'm going to draw each of these shapes.	On the chart paper, draw a large example of each shape: rectangle, square, pentagon, and trapezoid, labeling each, saying each shape's name out loud, and asking the children to repeat after you.
“ Let's talk about the sides and corners (or angles) of these shapes. What is a side of a shape? Who can help me find the sides of this pentagon?	Using the pentagon as an example, explain that a side of a shape is a straight line that helps to define its shape. Have a child come up and point to the sides of the pentagon.
“ What is a corner or angle of a shape? Who can help me find the corners of this pentagon?	Describe that a corner (angle) of a shape is the point where two lines come together on a shape. Have a child point to the corners (angle) of the pentagon.
“ Let's find the sides and corners of the rest of our shapes!	Have children come up to identify the sides and corners (angles) of the rest of the shapes. They can point, or you can use the same stickers from the last time they identified sides and corners of shapes.
“ Finally, let's compare two of our shapes.	Briefly focus the children on the square and rectangle. Help them talk about the difference between the two shapes (rectangles always have two longer sides).

Day 2

“ Now, let’s go back to our concentration game. We will play this game in groups of two. When you and your partner get your cards, put them on the table with the shape picture facing down. When it is your turn, turn over any two cards so that the shape is facing up and say the name of the shape out loud to your partner. Then think about if the shapes on your two cards match.

Model putting the cards face down on the table and then turning over two cards.

“ If you turn over two cards that match, you can pick up these cards and keep them in a pile in front of you. If you turn over two cards that don’t match, turn them back over so that the shape is face down, but try and remember where that shape is for your next turn. Now it is your partner’s turn.

Model finding a match and finding a set that doesn’t match.

Demonstrating the game: As you demonstrate the game, have the children:

1. Contrast squares, pentagons, rectangles, and trapezoids, noting the similarities and differences across the four shapes (e.g., rectangles have two longer sides, trapezoids have two leaning sides)
2. Consider having the children do a particular gesture (like stand up) every time they encounter a trapezoid, then a different one every time they come across a pentagon (like hop on one foot)
3. Randomly arrange shape cards face down, on the table or floor, in rows and columns
4. Select two children to come up and play the game

“ When you play during center time, you’ll be working with a partner. Remember to take turns as you play the game. Remember to say, out loud, the names of the shapes you turn over. Also, you can create a move for each type of shape you turn over. For example, pentagons could be a clap, squares a stand up, etc. As you play the game, I will be walking around to see if you need help.

Day 2

Hands-On Center Activities

Pattern Concentration

(10 minutes/Pairs of children)

Materials:

Pattern Concentration cards (2 sets)

Repeat Week 6 Day 1 hands-on center activity.

Hands-On Center Activities

Missing Numbers

(10 minutes/Pairs of children)

Materials:

Student 0 – 10 number line (2)
Student 0 – 10 number lines with missing numbers (4 different number lines; 2 sets)
Tiny number cards to put on number line (4 sets)

Repeat Week 6 Day 1 hands-on center activity.

Review Games that can also be available during this time.

Next? | The Number Tree | Numbo (1-20)

Pattern Match AB and ABB | Which Has More? (0-10)

Shape Zap | Pattern Match AB | Go Fish (1-9) | Numbo (0-5)

Day 3

Math Detective Journal with Easy Game Play

(15 minutes/ Small Group)

Materials:

Math Detective Journals
Pattern blocks
Crayons
Tiles for missing numbers

Math Detective Journal

“ Today your math detective work is with shapes. You might want to think of yourselves as shape detectives - learning more about shapes by tracing around them and naming the shapes that you make.

“ You will be using these pattern blocks to draw different shapes in your Math Detective Journals.

Hold up the different shapes of pattern blocks and name each shape.

“ Let’s get started making our shapes!

Demonstrating the task: As you demonstrate the task using the materials supplied, you should be surel to:

1. Use pattern blocks to have the children trace around the edge of shapes and then name them. Help them name shapes they don’t know.
2. Encourage children to combine different shapes to make new shapes, pictures of familiar objects, and/or designs.

Day 3

Game Description:

Oops! (1–10)

"OOPS, did I make a mistake?" is the question a pair of players will have to ask themselves as they take turns drawing random number cards from a face down collection. Together they will work to arrange the drawn numbers on a blank number line in the correct sequential order.

" Today we are going to play a new math game using our number line that extends from the number zero all the way up to the number 10.	Show the children the number line.
" Who can come up and count up to 10 on our number line?	Assist the child with counting if he/she has difficulty.
" This is another game that you will play with a partner. You and your partner will be given a number line that looks like this, except it will have NO NUMBERS written on it! Have any of you seen a number line that has no numbers?	Hold up the 0-10 number line.
" You will also have a bunch of tiles that have the numbers 0–10 written on them. For this game, you and your partner will take turns taking one tile from a pile of tiles and then figuring out where on the blank number line you think the number belongs.	
" Let's play a bit together. Here is my blank number line.	Hold up the blank number line for children to see.
" Now, I am going to take a tile from the pile.	Use the number you draw to explain to the children the logic in figuring out where the tile belongs. Here is an example of what you could say if you drew a number 3 from the pile.
" Who can tell me what number I picked? That's right…..it is a 3. Where do you think that the 3 would go on my 0-10 number line? Do you think it belongs towards the beginning or do you think it belongs towards the end? How do we know?	Allow a moment for children to respond.

Day 3

“ During this game, if you get confused and want to move a number that you already put down to a different spot on the number line, all you have to do is say “OOPS” and then instead of picking a new tile from the pile on your turn, you can move a number tile that you already put down.	Demonstrate an example of putting the number 3 you drew from the pile all the way at the end of the number line and then in an exaggerated manner, picking it up and moving it closer towards where it actually belongs.
“ How do you know when this game is finished?	Allow a moment for children to respond.
“ When there are no more tiles in our pile and they are all on our blank number line, you will know the game is finished. Then you can look at our regular number line and make sure that it looks the same as the one you and your partner just made! “ When you play during center time, you’ll be working with a partner. Remember to say, out loud, the names of the number as you pick from the pile. As you play the game, I will be walking around to see if you need help.	

Hands-On Center Activities

Pattern Concentration

(10 minutes/Pairs of children)

Materials:

Pattern Concentration cards (2 sets)

Repeat Week 6 Day 1 hands-on center activity.

Day 3

Hands-On Center Activities

Missing Numbers

(10 minutes/Pairs of children)

Materials:

Student 0 – 10 number line (2)
Student 0 – 10 number lines with missing numbers (4 different number lines; 2 sets)
Tiny number cards to put on number line (4 sets)

Repeat Week 6 Day 1 hands-on center activity.

Review Games that can also be available during this time.

Next? | The Number Tree | Numbo (1-20)

Pattern Match AB and ABB | Which Has More? (0-10)

Shape Zap | Pattern Match AB | Go Fish (1-9) | Numbo (0-5)

Day 4

Weekly Math Circle Routine With Guided Reading

Materials:

Small teacher 0 -20 number line
Small piece of paper or post-it to cover a number on the number line
Dry erase board
Dry erase markers
Head, Shoulders, Knees, & Toes Lyrics
Large dice
Ten, Nine, Eight book

Optional: Use Web link http://www.myvoxsongs.com/heads-shoulders-knees-and-toes.html of Head, Shoulders, Knees, and Toes to stream audio/video on any Web-enabled device

(25 minutes/ Whole Class)

Number Line Time

" Now we are going to work with numbers on a number line again. Remember that the 1 comes after the zero, the 2 comes after the 1. Who can tell us what comes after the 2? After the 3? After the 4?	Allow a moment for children to respond.
" On the number line, the numbers get bigger in this direction. The smallest number on this number line is 0 and the biggest is 20. The number 20 is the farthest away from the 0.	Slide your finger under the line, moving to the right.
" First, we are going to work together to find the number 4 and the number 12 on the number line that I am holding up. Who thinks they can come up and point to these numbers?	Allow a moment for children to respond.
" Now who thinks they can find a number that is LESS than the number 9? Does anyone want to come and try?	Allow a moment for children to respond.
" How do we know that the number (child's name) is pointing to on the number line is less than 9?	*Because it is closer to the zero; because it is farther from the twenty; because it is smaller than 9; because it is earlier on the number line.*

Day 4

“ Next I am going to hide a number on our number line. Can anyone tell us what number is missing?	Place a small piece of paper or Post-it note over the number 5 and allow children a moment to respond.
“ That was really great. For this next part of our activity, we are going to count out loud together. We’ll start with the number zero and go up until the number 12 and then start at the number 10 and go back down to zero while we look at our number line. I am going to keep track of how many numbers we say by making tally marks on the dry erase board.	
“ The last thing we’re going to do with our number line right now is try and point to a number that comes AFTER the number 1. Does anyone want to try and do this?	Allow a moment for children to respond.
“ How do we know that the number (child’s name) is pointing to on the number line comes after 1?	*Because it is farther from the zero; because it is closer to the twenty; because it is bigger than the 1; because it is further along on the number line.*

Head, Shoulders, Knees & Toes Song

“ Today we are going to sing the “Head, Shoulders, Knees & Toes” song together again.

“ Now let’s count the body parts named in the song. How many heads to you have? How many shoulders? How many knees? And how many toes?

Head, Shoulders, Knees, and Toes Lyrics

Head, shoulders, knees and toes, knees and toes

Head, shoulders, knees and toes, knees and toes

And eyes and ears and mouth and nose

Head, shoulders, knees and toes, knees and toes

(Repeat, getting faster each time)

Day 4

Number Scene

“ Now it’s time to play our dice game! Does everyone remember how to play?	Choose a child. The child that you chose comes up and rolls the die. You hold on to the second die. You briefly (for 4 seconds) show all the children the side that the die landed on.
“ Now it is important for you all to try and remember the arrangement of dots I showed you, how many dots make up the arrangement, and the number that the dots count up to. Does anyone have any ideas? I’m going to keep track of all of your number ideas.	Make tally marks on the dry erase board as children shout out their ideas.
“ Together let’s count the dots out loud. Ok, we’ve counted them all now…we have _____ dots altogether. Who wants to find this number on our number line?	Choose a child to find the number on the number line. Then, while displaying the die face, describe the configuration of dots using language similar to these descriptions: 1. a single dot in the middle of the die face 2. two dots arranged on a diagonal at opposite corners of the die face 3. three dots in a row arranged on a diagonal at opposite corners of the die face 4. four dots one at each corner of the die face 5. five dots one at each corner of the die face with a single dot in the middle 6. two rows of three dots along opposite sides of the die face
“ Now let’s look at our tally marks and see how many of you were able to match the dots on the die to the right number. Who can tell me what the tally is for each number?	Choose a child to count the tally marks for each number selected. Congratulate the children who got it right.
“ Who wants a turn at rolling the next die?	The child that you chose comes up and rolls the die. You briefly (for 4 seconds) show all the children the side that the die landed on.
“ Is what I just showed you more or less than what we saw the first time the die was rolled? How do you know this?	Allow a moment for children to respond.
“ Great thinking everyone. Let’s look at the number line together to see if we’re right.	Point to the numbers on the number line, explaining which number is closer to zero and therefore less, and which is closer to the twenty and therefore more.

Day 4

Book reading ("Ten, Nine, Eight")

" Can you tell me what you see on this book cover? Do you think this cover can tell us something about what this story is about?	Hold the book cover up so all the children can see it.
" Let's find out what this story is about.	As you read the book to the children, encourage everyone to count the objects on each page. For example, count the 10 small toes on page 2.
Pause on Page 6:	Point to the windowpanes when describing them and counting them.
" Let's see how many windowpanes there are on this page. These are windowpanes. They are pieces of glass that make up a window. I can count 1, 2, 3, 4, 5, 6, 7, and 8. Did you count 8, too?	
At the end of the book:	
" Did you notice that for this counting book we started at 10 and then counted down to 1? Sometimes that's called counting down, or counting backwards. Let's count backwards together starting at 10 and ending at 1: 10, 9, 8, 7, 6, 5, 4, 3, 2, 1. Good counting!	
" Now I wonder if any of you can tell me something about the number 4 and the number 7. We read about 4 sleepy eyes, and 7 empty shoes. Which do you think is more, 4 or 7? How could you figure this out?	Give children a chance to respond.
" 7 is more than 4. These are some good ideas about how to figure out which is the bigger number—you could count on your fingers, or use blocks, or make tally marks on a paper. Good thinking about this problem.	

Day 4

Hands-On Center Activities

Pattern Concentration

(10 minutes/Pairs of children)

Materials:

Pattern Concentration Cards (2 sets)

Repeat Week 6 Day 1 hands-on center activity.

Hands-On Center Activities

Missing Numbers

(10 minutes/Pairs of children)

Materials:

Student 0 – 10 number line (2)
Student 0 – 10 number lines with missing numbers (4 different number lines; 2 sets)
Tiny number cards to put on number line (4 sets)

Repeat Week 6 Day 1 hands-on center activity.

Review Games that can also be available during this time.

Next? | The Number Tree | Numbo (1-20)

Pattern Match AB and ABB | Which Has More? (0-10)

Shape Zap | Pattern Match AB | Go Fish (1-9) | Numbo (0-5)

Week 7 Brown Week

Full Implementation Week

Objectives

Counting	• Children will learn to count up to 16 forward and backward • Children will learn to compare two quantities • Children will learn cardinality to 9 • Children will learn to count using a 0-20 number line
Shape	• Children will identify a triangle, square, pentagon, circle, rectangle, hexagon and trapezoid • Children will be able to create patterns using shapes
Number Recognition	• Children will identify numbers from 0-20 • Children will learn how to tally numbers up to 9 • Children will learn to subsitize numbers to 6 • Children will compare sets of numbers to identify which is smaller and which is larger
Pattern	• Children will learn to recognize and create their own AB and ABB sound patterns • Children will be able to create patterns using shapes

Day 1

Introductory Activity with Visuals

Big Numbers

(25 minutes/ Whole Class)

Materials:

Chart paper
Marker
Small teacher 0-20 number line
Unifix cubes
Large dice
Plastic fruit
Plastic bins

“ Today we are going to practice our number counting by doing a fun activity together. But first we’re going to talk about the number 0 and the number 10.	Draw a zero on the chart paper. Remind children how this shape looks like a circle but also looks like the number zero.
“ Did you know that the number 0 is part of the number 10?	Draw 2 spaces on the chart paper indicating where the numerals belong.
“ Did you also know that the number 10 is made up of two numerals 1 and 0?	Add each numeral to the blank space as you talk. Then write the number 10 again on the chart paper; have the children say the name of the number out loud.
“ Let’s count from 0-10 and then down from 10-0!	
“ Now, for this next part we are going to use the large dice.	Call a child up and give her a die to roll. **Demonstrating the task:** As you demonstrate the task, be sure to: 1. Ask the child how many dots there are without counting. 2. Then ask the child to count the number of dots out loud to the class. 3. Give the child unifix cubes and asks her to make a tower with that same amount of cubes (i.e. if she rolled a five on the die then she would make a tower of five unifix cubes). 4. Have the child count the number of cubes for the group. 5. Place the cubes next to the die. 6. Call another child up to roll the die and repeat the steps above. 7. Ask which tower is higher, therefore, which number is bigger 8. Repeat sequence with at least two more children.

Day 1

“ For the last part we’re going to use plastic fruit.	Take out two bins or containers: 1. Count out loud with the children as you place 12 (one dozen) plastic fruit in one bin. 2. Have a child locate 12 on the number line. Let them know that another name for 12 of something is a dozen. 3. Put the remainder of the plastic fruit in a second bin. 4. Walk around and show the children first the bin with one dozen fruit and then the bin with many dozen fruit. 5. Discuss which bin has less (one dozen) and how the children know.

Hands-On Center Activities

Dot to Number Concentration

(10 minutes/Pairs of children)

Materials:

Dot to Number Concentration cards (2 sets)

“ Do you remember when we matched the number of dots on a card to a matching card? Today we’re going to do something a little different. “ First we are going to look at a card and see if we know (without counting) the number of dots on it.	Show a card and see if the children recognize the number of dots without counting. Then ask the children to count the number of dots to confirm their ideas.
“ Then we’re going to try and match it to a card that has the right number written on it.	Show a card with a number written on it.
“ For example, if my dot card has 3 dots on it, then I will look for a card with the number 3 written on it.	Hold up the card with 3 dots and the card with the number 3. Then model how you would flip over the cards to look for a match.
“ Let’s see if you can try to play now.	

Day 1

Hands-On Center Activities

Pattern Play

(10 minutes/Pairs of children)

Materials:

Clear plastic bin
Plastic fruit
Counting bears
Unifix cubes
AB pattern signs
ABB pattern signs
AABB pattern signs

“ Remember when we talked about patterns and then we looked around the room to see if we could find any patterns in our classroom?	Allow children a moment to respond.
“ Now we’re going to make our own patterns again. I’m going to make a pattern to remind you how it works: one unifix cube, one piece of fruit, another unifix cube, and another piece of fruit. This is called an AB pattern. Let’s see if we can make one together.	Model making the pattern with the objects as you describe the pattern.
“ I’ll leave these pattern signs here to remind you about each of the patterns we talked about. “ Now use the materials supplied to create your own patterns to share with a partner.	

Review Games that can also be available during this time.

All Shape Concentration | Oops! (1-10) | Next?

The Number Tree | Numbo (1-20)

Pattern Match AB and ABB | Which Has More? (0-10)

Shape Zap | Pattern Match AB | Go Fish (1-9) | Numbo (0-5)

Day 2

Guided Challenge Game Play

(25 minutes/ Whole Class)

Materials:

Plastic fruit
Tray
Small teacher 0-10 number line
0-10 number line with numbers 2, 4, 6, 8, 10 bolded

Game Description:

The Fruit Party

Taking turns and in pairs, children practice sharing first 2, then 4, and more pieces of fruit with each other and then with their friends at a fruit party. Children count out equal shares of fruit for friends at the party, first among each other then among friends. The fruit includes: grapes, blueberries, oranges, apples, strawberries, bananas.

“ Today you are going to have a chance to think about sharing with a friend and what’s involved in making sure that everybody gets the same amount. I will show you how to go about it. Later you will have a chance to try this out with a partner during center time. “ To begin, we are going to need 10 pieces of fruit. Who can find 10 on the number line?	Select a child to locate 10 on the number line. Help the group count from 0–10 out loud.
“ Now I need someone to count out 10 pieces of fruit.	Select a child to count out 10 pieces of fruit from the jar of plastic fruit. Count with child out loud and encourage the rest of the group to count along as well. Ensure that the fruit is laid out on a tray so all can see the different kinds of fruit that make up the collection.
“ Who can describe what we have laid out in front of us?	Select a child to talk about and sort the fruit into different kinds on the tray. Help the child talk about how many of each kind of fruit there are. Locate each quantity on the number line. Help children to decide on the largest and smallest group of fruit.

Day 2

“ Today’s new math activity is called “The Fruit Party.” It will help us learn about sharing fairly. As I show you how the game is played, please watch carefully so you’ll know what to do when you play with a partner during center time. Some of you will have a chance to try out the game now with a partner. “ To play this game, you and your partner will have a number line that goes from 0—10. But this number line is special because it has certain numbers written bigger than the other numbers.	Hold up the number line with bolded numbers for children to see and call up two volunteers.
“ You and your partner will also be given a container with the plastic fruit that we just looked at. “ One of you will point to the first number on the number line that is bigger and darker than the rest. Can someone point to this number for us?	Call up a child to point to the number and say it out loud.
“ That’s right…..the number 2. Once you have pointed to the number and said it out loud to your partner, you will then pick out that same amount of fruit from the container and give them out to you and your partner evenly. Evenly means that you have to make sure that you and your partner both have the same amount of fruit. Let’s watch (child’s name) and (child’s name) play and see how many they each get.	Let the first child pick out two pieces of fruit and guide her through the distribution of one piece of fruit to her partner and one piece of fruit for herself.
“ How many pieces of fruit did they each get?	Allow a moment for children to respond.
“ That’s right…..one each. Let’s play one more round of this game, so that we make sure everyone understands how to play. “ What is the next number on our number line that is darker and larger than the rest?	Allow a moment for children to respond.
“ That’s right, the number 4.	Then guide the second child as she counts out four pieces of plastic fruit and then distributes those four pieces of fruit between herself and her partner.

Day 2

“ Once you and your partner have gotten to the last big number on your number line (the “10”), you can get together with two classmates and play the fruit party game all together.

Demonstrating the game: As you demonstrate the game, be careful to:

1. Model thinking aloud as you use the strategy of giving each person one piece of fruit at a time
2. Ask children to name (by subitizing) the number of pieces of fruit to distribute, and then count them out loud
3. Count the fruit (1, 1, 2, 2, 3, 3..) out loud as they get distributed

“ When you play during center time, you’ll be working with a partner. Remember to count out loud as you share the fruit equally with your partner and friends at the fruit party, take turns playing the game, and help each other count. As you play the game, I will be walking around to see if you need help.

Hands-On Center Activities

Dot to Number Concentration

(10 minutes/Pairs of children)

Materials:

Dot to Number Concentration cards (2 sets)

Repeat Week 7 Day 1 hands-on center activity.

Day 2

Hands-On Center Activities

Pattern Play

(10 minutes/Pairs of children)

Materials:

Plastic fruit
Counting bears
Unifix cubes
AB pattern signs
ABB pattern signs
AABB pattern signs

Repeat Week 7 Day 1 hands-on center activity.

Review Games that can also be available during this time.

All Shape Concentration | Oops! (1-10) | Next?

The Number Tree | Numbo (1-20)

Pattern Match AB and ABB | Which Has More? (0-10)

Shape Zap | Pattern Match AB | Go Fish (1-9) | Numbo (0-5)

Day 3

Math Detective Journal with Easy Game Play

(15 minutes/ Small Group)

Materials:

Math Detective Journals
Complex shape stickers
AB pattern signs
ABB pattern signs
AABB pattern signs
Chart paper
Marker
Ice cube tray (fitted with numbers 1-9 and shapes (trapezoid, pentagon, and hexagon)
Pompoms
Small student 0-20 number line

Math Detective Journal

" Ok, Math Detectives, today we are going to create our own patterns using different shape stickers.	Show an example sheet of shape stickers as you describe them.
" Before we start, let's look back in our Math Detective Journals and see what kind of patterns we made before. Who wants to share a pattern from their Math Detective Journal?	Allow a moment for children to respond. If there are no responses pick a child who has a good example of a pattern in her journal. Ask the child to "read" the pattern or "read" it for her.
" Who knows what's next in (child's name)'s pattern? Great work!	Remind children that there are different kinds of patterns; we can make patterns from all kinds of "stuff;" we can make color patterns, and number patterns, and shape patterns, and sound patterns. Patterns repeat and are predictable; we can tell what the next element of the pattern will be, based on what has come before.
" Now you're going to use your Math Detective Journals and these stickers to make patterns.	**Demonstrating the task:** As you demonstrate the task, be sure to: 1. Ask children to turn to the next empty page in their journal. 2. Quickly review the names of the shapes on the sticker sheets and describe how they will create their own patterns in their Math Detective Journals using a combination of shape stickers. 3. Have them make a simple AB pattern first and if there is time, they can make examples of the other pattern types (AABB, ABB). 4. As you review what children are making have them "read" their patterns by naming the shapes that are included.

Day 3

Easy Game:

Which Has More (1-9)?

To answer the question "Which Has More?" players alternate tossing pompoms into the game's Number /Shape Tray (an ice cube tray fitted with numbers or shapes attached to the inside floor of each cube holder; some numbers or shapes may repeat depending on the focus of the game that day). For today's game the focus numbers include 1-9 as well as various shapes (trapezoid, pentagon and hexagon). Each player tosses a pompom aiming towards the number/shape "ice cube" tray. The player looks to see where the pompom landed, identifying the number and saying it out loud. If the player lands on a shape instead of a number, she instead will need to count the corners of the shape. Then the second player will go. Once both players have tossed and announced their numbers, together they will decide who has a bigger number. The player with the biggest number gets to start the next round.

- " Today we are going to play a math game you've played before. Similar to the last time, I will remind you how to play the game. Later, you will have the chance to play this same game, with a partner, during center time.
- " Today's math game is called "Which Has More?" It is a number game. As I remind you how the game is played, please watch carefully so you'll know what to do when you play with a partner during center time.
- " Before we get started, let's count from 1-9.
- " Now can we count down from 9-1?
- " Now we're going to pretend we're the number line!

Call two children up to repeat counting one by one, as you create a human number line selecting one child for each number counted, beginning with 1 and ending with 10. Then work together with children to figure out which child is in the "1" space and which child is in the "9" space.

- " Now it's time to play "Which Has More?"
- " Here is an ice cube tray which some of you might recognize from home. Instead of ice though, these ice cube trays have a number or a shape written on a piece of paper inside each opening.
- " To start the game, you and your partner will each get a pompom.

Call two children up to demonstrate, handing them a pompom each.

- " When it is your turn, you will need to lightly toss one pompom into the tray and then call out the number that the pompom landed on top of. If your pompom lands on a shape instead of landing on a number though, you will need to count the number of corners that your shape has. Then you and your partner will work together to find the number on the number line.

Let one of the children try this out with your assistance.

Day 3

“ Then it will be your partner’s turn to do the same. But the person who went first will have to remember what number or shape she landed in!	Then let the second child do the same, prompting her to count the number of corners if a shape was landed on.
“ Who has a bigger number? How do we know? Should we look at our number line?	Allow a moment for children to respond.
“ When you play during center time, you’ll be working with a partner. Remember to say, out loud, the number you land on or the number of corners on the shape you land on. As you play the game, I will be walking around to see if you need help.	

Hands-On Center Activities

Dot to Number Concentration

(10 minutes/Pairs of children)

Materials:

Dot to Number Concentration cards (2 sets)

Repeat Week 7 Day 1 hands-on center activity.

Day 3

Hands-On Center Activities

Pattern Play

(10 minutes/Pairs of children)

Materials:

Plastic fruit
Counting bears
Unifix cubes
AB pattern signs
ABB pattern signs
AABB pattern signs

Repeat Week 7 Day 1 hands-on center activity.

Review Games that can also be available during this time.

All Shape Concentration | Oops! (1-10) | Next?

The Number Tree | Numbo (1-20)

Pattern Match AB and ABB | Which Has More? (0-10)

Shape Zap | Pattern Match AB | Go Fish (1-9) | Numbo (0-5)

Day 4

Weekly Math Circle Routine With Guided Reading

(25 minutes/ Whole Class)

Materials:

Small teacher 0 -20 number line
Small piece of paper or post-it to cover a number on the number line
Dry erase board
Dry erase markers
10 little numbers lyrics
Large dice
Zero book

Optional: Use web link http://www.youtube.com/watch?v=dk9Yt1PqQiw to stream audio/video of 10 Little Numbers on any web-enabled device

Number Line Time

“ Now we are going to work with numbers on a number line again. Remember that numbers on a number line always go in order. The 1 comes after the zero, the 2 comes after the 1. Who can tell us what comes after the 2? After the 3? After the 4?	Point to the numbers on the number line.
“ On the number line, the numbers get bigger in this direction. The smallest number on this number line is 0 and the biggest is 20. The number 20 is the farthest away from the 0.	Slide your finger under the line, moving to the right.
“ First, we are going to work together to find the number 0 and the number 16 on the number line that I am holding up. Who thinks they can come up and point to these numbers?	Allow a moment for children to respond.
“ Now who thinks they can find a number that is MORE than the number 2? Does anyone want to come and try? “ How do we know the number [child’s name] is pointing to on the number line is more than 2?	*Because it is further from the zero; because it is closer to the twenty; because it is bigger than 2; because it is further along on the number line.*
“ Next I am going to hide a number on our number line. Can anyone tell us what number is missing?	Place a piece of paper or Post-it note over the number 9 and give children a moment to respond.

Day 4

- “ That was really great. For this next part of our activity, we are going to count out loud together. We'll start with the number zero and go up to the number 16 and then start at the number 16 and go back down to zero while we look at our number line. I am going to keep track of how many numbers we say by making tally marks on the dry erase board.
- “ The last thing we're going to do with our number line right now is try and point to a number that comes BEFORE the number 5. Does anyone want to try and do this?
- “ How do we know that the number (child's name) is pointing to on the number line comes before 5?

Because it is closer to the zero; because it is farther from the twenty; because it is smaller than the 5; because it is not as far along on the number line.

10 Little Numbers Song

- “ Now we are going to sing our “10 Little Numbers” song together. Remember, I will say the words. You will repeat after me, and then we'll be ready to sing the song together

As you sing along with the children encourage them to count along using their fingers.

10 Little Numbers (to the tune of 10 Little Indians)

Verse 1

One little, two little, three little numbers
Four little, five little, six little numbers
Seven little, eight little, nine little numbers
Ten little numbers

Verse 2

Ten little, nine little, eight little numbers,
Seven little, six little, five little numbers
Four little, three little, two little numbers
One little number

Number Scene

- “ Now it's time to play our dice game! Does everyone remember how to play?

Choose a child. The child that you chose comes up and rolls the die. You hold on to the second die. You briefly (for 3 seconds) show all the children the side that the die landed on.

Day 4

“ Now it is important for you all to try and remember the arrangement of dots I showed you, how many dots make up the arrangement, and the number that the dots count up to. Does anyone have any Ideas? I’m going to keep track of all of your number ideas!	Make tally marks on the dry erase board as children shout out their ideas.
“ Together let’s count the dots out loud. Ok, we’ve counted them all now…we have _____ dots altogether. Who wants to find this number on our number line?	Choose a child to find the number on the number line. Then, while displaying the die face, describe the configuration of dots as you have been. (See p. 15)
“ Now let’s look at our tally marks and see how many of you were able to match the dots on the die to the right number. Who can tell me what the tally is for each number?	Choose a child to count the tally marks for each number selected. Congratulate the children who got it right.
“ Who wants a turn at rolling the next die?	Child that you chose comes up and rolls the die. You briefly show (for 3 seconds) all the children the side that the die landed on.
“ Is what I just showed you more or less than what we saw the first time the die was rolled? How do you know this?	Allow a moment for children to respond.
“ Great thinking everyone. Let’s look at the number line together to see if we’re right.	Point to the numbers on the number line, explaining which number is closer to zero and therefore less and which is closer to the twenty and therefore more.

Book Reading (“Zero”)

“ Can you tell me about what you see on this book cover? Do you think this cover can tell us something about what this story is about?	Hold the book cover up so all the children can see it. Give children a chance to respond and then read the title.

Day 4

❝ Let's find out what this story is about.

Pause on Page 4:

❝ Have you seen the number 0 before? Do you know other ways to say 0? We can show the number, we can write the word "zero", we can say none, or nothing.

Pause on Page 12:

❝ Can you find any "0s" in the classroom? Where are they?

Pause on Page 20:

❝ What shape is a 0? Can you describe it? Does it have straight lines? Does it have curved lines? Does it have angles?

At the end of the book :

❝ This book was all about the number 0. Can you find a 0 in the number 10?

Point to the number 10 on the number line.

❝ How many numerals do you need to make the number 10? 1, 2 .

Point to the '1' when you say '1' and point to the '0' when you say '2'.

Can you name each of these numerals? Let's see if we can count to 9 starting from 0: 1, 2, 3, 4, 5, 6, 7, 8, and 9. Great counting. Now, does anyone know what happens after the number 9?

The next number is 10.

Hands-On Center Activities

Dot to Number Concentration

(10 minutes/Pairs of children)

Materials:

Dot to Number Concentration cards (2 sets)

Repeat Week 7 Day 1 hands-on center activity.

Day 4

Hands-On Center Activities

Pattern Play

(10 minutes/Pairs of children)

Materials:

Plastic fruit
Counting bears
Unifix cubes
AB pattern signs
ABB pattern signs
AABB pattern signs

Repeat Week 7 Day 1 hands-on center activity.

Review Games that can also be available during this time.

All Shape Concentration | Oops! (1-10) | Next?

The Number Tree | Numbo (1-20)

Pattern Match AB and ABB | Which Has More? (0-10)

Shape Zap | Pattern Match AB | Go Fish (1-9) | Numbo (0-5)

Week 8 Pink Week

Full Implementation Week

Objectives

Counting	• Children will learn to count forward to 20 and backward from 18 • Children will learn about cardinality to 20 • Children will learn to count using a 0-20 number line • Children will learn to count using one to one correspondence
Shape	• Children will identify a triangle, square, pentagon, circle, rectangle, hexagon and trapezoid • Children will learn about what corners (angles) are when identifying different shapes • Children will be able to match identical shapes
Number Recognition	• Children will identify numbers from 0-20 • Children will learn how to tally numbers up to 9 • Children will learn to subsitize numbers to 6 • Children will compare sets of numbers to identify which is smaller and which is larger
Pattern	• Children will learn to recognize and create their own AB sound patterns

Day 1

Introductory Activity with Visuals

Gotcha!

(25 minutes/ Whole Class)

Materials:

Chart paper
Markers (two different colors)
Small teacher 0–10 number line

“ Are we ready to be Math Detectives again? Today, you are going to have to look and listen very, very carefully while we play a game called “Gotcha!”	Begin counting from the number 0 up to the number 9, making one of the following errors:
“ Sometimes I make mistakes when I count. I want you to listen carefully and see if you hear any mistakes. If you do, I want you to say ‘Gotcha!’ and raise your hand. I will call on someone to tell me about the mistake.	1. Omitting a number (0, 1, 2, 3, 4, 6) 2. Repeating a number (0, 1, 2, 3, 4, 5, 5, 6, 7) 3. Naming something that is not a number (0, 1, 2, 3, 4, finger, six) 4. Giving a wrong name for a number (0, 1, 2, 3, 4, 5, 6, sevelenennon, 8, 9)
“ Are you ready to listen carefully, Math Detectives?	
“ Did you hear a mistake?	Ask in a surprised voice after a number of hands are raised. Call on a child to identify and correct the mistake before moving on to the next count.
“ Great listening! Now, I’m going to count backwards. Get ready to listen for any mistakes.	Begin counting backwards from the number 9 down to 0, making one of the following errors: 1. Omitting a number (5, 4, 2, 1, 0) 2. Repeating a number (9, 8, 7, 6, 6, 5, 4), 3. Naming something that is not a number (9, 8, 7, Q, 5, 4. Giving a wrong name for a number (9, 8, sevelenennon, 6, 5, 4)
“ Did you hear a mistake?	Ask in a surprised voice after a number of hands are raised. Call on a child to identify and correct the mistake before moving on to the next count.
“ That was some great math detecting. Let’s talk a little more about our numbers.	Discuss what reverse order is - starting at the bigger number, 9, and ending at a smaller number, 5.

Day 1

“ Finally, let’s do some more counting!	Count from 10 to 0 using the number line for reference, then count from 0 to 10 using the number line for reference.
“ Now we’re going to move on to some shapes. Sometimes I make mistakes with my shapes too. Look carefully at the shapes I draw and raise your hand and say “Gotcha” if you see a mistake.	Draw shapes with different mistakes: 1. A triangle with a squiggly third side. 2. A rectangle with a dotted fourth side. 3. A square with a zigzag fourth side.
“ Did you see a mistake?	Ask in a surprised voice after a number of hands are raised. Call on a child to identify and correct the mistake in a different color marker, and tell the class how many sides the shape has. Repeat with the other shapes.
“ That was some great listening and looking, Math Detectives!	

Hands-On Center Activities

Shape Dominoes

(10 minutes/Pairs of children)

Materials:

Shape Domino cards (2 sets)

“ This game of Dominoes is a little different from the last one we played. For this game we will need to look closely at the shapes on both sides of the cards.	Hold up a domino card and point to the shapes.
“ Once you have a partner, you will work together to match a shape on one side of a card with a matching shape on a different card. You’ll then put the cards together so that the matching shapes are touching. Don’t forget to say the name of the shape out loud once you have found a match for it!	Model matching together several shape dominoes.

Day 1

Hands-On Center Activities

Number Act Out

(10 minutes/Pairs of children)

Materials:

Small Student 0 – 20 number line (2)
0 -11 number cards (2 sets)

- " It's time for us to play the game where we have to use our imagination to act out numbers!
- " Remember that you and your partner will get a bunch of cards that have numbers written on them. You will then take turns picking up a card and acting out the number on the card.

If necessary, act out an example again…..clapping three times for the number three, etc.

- " After you act out your number, your partner then gets to guess what number is on your card. If they guess the right number, they can find the number on the number line.

Model locating the number on the number line.

Review Games that can also be available during this time.

The Fruit Party | Which Has More? (1-9)

All Shape Concentration | Oops! (1-10) | Next?

The Number Tree | Numbo (1-20)

Pattern Match AB and ABB | Which Has More? (0-10)

Shape Zap | Pattern Match AB | Go Fish (1-9) | Numbo (0-5)

Day 2

Guided Challenge Game Play

(25 minutes/ Whole Class)

Materials:

Plastic fruit
Counting bears
Pattern blocks
Tray
Small teacher 0–20 number line

Game Description:

Sort and Count

In pairs, children count and sort 20 objects (fruit, bears, and pattern blocks). The first child in the pair counts, out loud, 20 objects (fruit, bears, and pattern blocks). The second child re-counts, out loud, the objects to make sure there are 20 objects. Once the count is verified, the second child sorts the objects into groups based on some self-determined criteria – color, shape, type of fruit, etc. The first child can help the sorter if asked. Once sorted, the child counts the number of objects in each group, locates the number on the number line, counts out (or on) the number of objects in combined groups and locates the number on the number line and finally the total altogether. The partners then switch roles.

" Today we are going to play a new math game. Similar to the last time, I will show you how to play the game. Later, you will have the chance to play this same game, with a partner, during center time.	
" Before we learn how to play the game let's count from 0 – 20 matching our count to the numbers on the number line.	Hold up the 0–20 number line so all children can see it. Count out loud from 0-20 with the children counting along with you.
" Today's new math game is called "Sort and Count." It is a game about counting and numbers. " As I show you how the game is played please watch carefully so you'll know what to do when you play with a partner during center time. Some of you will have a chance to try out the game now with a partner. " I'm going to ask a volunteer to come up and help me show everyone how to play Sort and Count.	Select a child to help demonstrate the game.
" In front of you we've got a tray, plastic fruit, counting bears, and pattern blocks. To start this game, count out 20 items and put them on the tray as you count them out. Choose items from each group—bears, fruit, and blocks.	Give the child a few moments to select what to count and to then count out 20 pieces. Once the 20 pieces are counted out, turn your attention to the objects on the tray.

Day 2

“ Now I am going to recount the items to make sure there are – How many?	*20!*
“ Next, I am going to put together the objects that are similar. I get to choose how I want to sort the objects you selected. If I need help I can ask you to help me.	Thinking out loud to the group, choose a couple of different sorting criteria and then group the similar items on the tray in front of the group. Then count the number in each group. Describe the groups you created. Tell the number in each group and locate the number on the number line, asking volunteers for help along the way. Discuss other ways you might have chosen to group 20 objects.
“ Great! Thanks for all of your help with sorting in different ways and then counting up what we sorted! “ The last thing we're going to do in this game is count two of our groups and find out how many items we have altogether. Does anyone remember what the word altogether means?	Wait for some responses and discuss with the group.
“ Let's add these two groups together and then work together to find the number on the number line.	Refer to the number line and model using it to count the items in each group and altogether.
“ When you play the game during center time, you'll be working with a partner. Remember to count out loud and ask your partner to help if you need it. As you play the game, I will be walking around to see if you need help.	

Day 2

Hands-On Center Activities

Shape Dominoes

(10 minutes/Pairs of children)

Materials:

Shape Domino cards (2 sets)

Repeat Week 8 Day 1 hands-on center activity.

Hands-On Center Activities

Number Act Out

(10 minutes/Pairs of children)

Materials:

Small Student 0–20 number line (2)
0–11 number cards (2 sets)

Repeat Week 8 Day 1 hands-on center activity.

Review Games that can also be available during this time.

The Fruit Party | Which Has More? (1-9)

All Shape Concentration | Oops! (1-10) | Next?

The Number Tree | Numbo (1-20)

Pattern Match AB and ABB | Which Has More? (0-10)

Shape Zap | Pattern Match AB | Go Fish (1-9) | Numbo (0-5)

Day 3

Math Detective Journal with Easy Game Play

(15 minutes/ Small Group)

Materials:

Math Detective Journals
Teacher Journal pages 8.1 – 8.4
Small teacher 0-20 number line
Dry erase board
Dry erase markers
Crayons
Number path boards (4 versions)
Unfix cubes
Large dice
Student 0-20 number line

Math Detective Journal

“ Today, Math Detectives, we are going to be counting and looking at numbers on the number line and comparing numbers 5 and 10. Let’s look at the number line and see what we know about it. Who can tell me what you see?	*There are numbers on the number line. The numbers are in order. The biggest number is at the extreme right end of the line. The smallest is at the extreme left end of the line.*
“ Great observations about our number line! Now, let’s use our number line to count backwards from 20.	Point to each number as the children count backwards.
“ That was great backwards counting! Let’s do some more!	Have children count backwards from 10 to 0; then count forwards from 0 to 10. Next have the children count backwards from 10 to 5; then count forwards from 0 to 5.
“ Which number is bigger 10 or 5? How do you know?	If they need help be sure to tell them about the location of the largest number on the number line (as you go up from 0 the numbers are getting bigger) and the location of the smallest number on the number line (as you count backwards the numbers are getting smaller).
“ So, which number is bigger 10 or 5?	Have them sky write the number 5 and then have them sky write number 10. Next, call children up to locate 5, then 10, then 0, then 20 on the number line.

Day 3

“ Now you are going to use your Math Detective Journals to be Math Detectives for the numbers 5 and 10!

Demonstrating the task: As you demonstrate the task, be sure to:

1. Have children turn to the next empty page in their journals.
2. Tell them that they will be Math Detectives for numbers 5 and 10.
3. Have a child point to number 5 then number 10 on the number line.
4. On the first empty page have each child write the number 5.
5. On the next empty page have each child write the number 10.
6. Explain to them that they will be making their own page of “5”. That means that they are going to make 5 dots (like on dice), 5 tally marks (similar to what they’ve done counting shapes), and 5 of anything else they would like to draw using shapes, figures or anything else they can think of. Demonstrate using Teacher Journal page 8.1.
7. Once they have finished their page of 5, they will be making their own page of “10” by making 10 dots (like on dice), 10 tally marks (similar to what they’ve done counting shapes), and 10 of anything else they would like to draw using shapes, figures or anything else they can think of. Demonstrate using Teacher Journal page 8.2.
8. Using Teacher Journal pages 8.3 and 8.4 have children compare a set of 5 to a set of 10 and identify which is smaller or less and talk about how they know which is larger and which is smaller.

Game Description:

Number Path

Partners take turns travelling along the number path from 1-20. Each player selects a unifix cube of a different color to play with as game pieces. Then children take turns rolling a die that tells how many spaces to move. The player that reaches the end of the 20-grid board first wins the game.

“ Today we are going to play a new math game. Similar to the last time, I will show you how to play the game. Later, you will have the chance to play this same game, with a partner, during center time.

“ Today’s new math game is called “Number Path.” It is a game about counting and numbers. As I show you how the game is played, please watch carefully so you’ll know what to do when you play with a partner during center time.

“ What I am holding up for you is the Number Path playing board. As you can see, it has a lot of numbers written on it. I am going to read out loud all of the numbers on the Number Path board.

Say the name of each number out loud while pointing to it.

Day 3

“ Now I am going to point to each number and you say the name out loud to me!	Point to the numbers and have the children name the numbers.
“ Who can count out the number of unifix cubes that I call out?	Call out some numbers from the Number Path board – pointing to the number on the board when you call it out, and have a child count out that number of unifix cubes. Once children seem familiar with the numbers, select two volunteers to demonstrate how the game is played for the rest of the group.
“ For this game, each player uses a unifix cube of a different color to play with as she travels the number path. “ The first player will roll the die and then, starting from the number one, will move the number of spaces that turn up on the die. Let’s look at an example of this.	After the first player rolls the die, ask the children what number was rolled. Then guide the student through the moving of her unifix cube the appropriate number of spaces away from the number “1” depending on what number turned up on the die.
“ Great job! Now it is time for your partner to take a turn.	Similar to the above, the next player takes her turn rolling the die. Guide her through the process of moving the game piece the correct number of spaces.
“ This is great! The first child whose unifix cube reaches the number 20 on the number path wins the game!	**Demonstrating the game:** As you demonstrate the game, be careful to: 1. Model rolling the die and counting out spaces to move. 2. Count aloud as you move your cube the correct number of spaces.
“ When you play during center time, you’ll be working with a partner. As you play the game, remember to count out loud and take turns counting on the number line to help move across the board. Be sure to help each other as you play. As you play the game, I will be walking around to see if you need help.	

Day 3

Hands-On Center Activities

Shape Dominoes

(10 minutes/Pairs of children)

Materials:

Shape Domino Cards (2 sets)

Repeat Week 8 Day 1 hands-on center activity.

Hands-On Center Activities

Number Act Out

(10 minutes/Pairs of children)

Materials:

Small Student 0 – 20 number line (2)
0 -11 number cards (2 sets)

Repeat Week 7 Day 1 hands-on center activity.

Review Games that can also be available during this time.

The Fruit Party | Which Has More? (1-9)

All Shape Concentration | Oops! (1-10) | Next?

The Number Tree | Numbo (1-20)

Pattern Match AB and ABB | Which Has More? (0-10)

Shape Zap | Pattern Match AB | Go Fish (1-9) | Numbo (0-5)

Day 4

Weekly Math Circle Routine With Guided Reading

(25 minutes/ Whole Class)

Materials:

Small teacher 0 -20 number line
Small piece of paper or post-it to cover a number on the number line
Dry erase board
Dry erase markers
Head, shoulders, knees and toes lyrics
Large dice
Pattern Fish book

Optional: Use web link http://www.myvoxsongs.com/heads-shoulders-knees-and-toes.html of Head, Shoulders, Knees, and Toes to stream audio/video on any web-enabled device

Number Line Time

“ Now we are going to work with numbers on a number line again. Remember that numbers on a number line always go in order. The 1 comes after the zero, the 2 comes after the 1. Who can tell us what comes after the 2? After the 3? After the 4?	Point to the numbers on the number line.
“ On the number line, the numbers get bigger in this direction. The smallest number on this number line is 0 and the biggest is 20. The number 20 is the farthest away from the 0.	Slide your finger under the line, moving to the right.
“ First, we are going to work together to find the number 7 and the number 18 on the number line that I am holding up. Who thinks they can come up and point to these numbers?	Allow a moment for children to respond.
“ Now who thinks they can find a number that is LESS than the number 5? Does anyone want to come and try?	Allow a moment for children to respond.
“ How do we know that the number (child’s name) is pointing to on the number line is less than 5?	*Because it is closer to the zero; because it us further from the twenty; because it is smaller than 5; because it is not as far along on the number line.*

Day 4

“ Next I am going to hide a number on our number line. Can anyone tell us what number is missing?	Place a small piece of paper or Post-it Note over the number 10 and allow a moment for children to respond.
“ That was really great. For this next part of our activity, we are going to count out loud together. We'll start with the number zero and go up until the number 18 and then start at the number 10 and go back down to zero while we look at our number line. I am going to keep track of how many numbers we say by making tally marks on the dry erase board.	
“ The last thing we're going to do with our number line right now is try and point to a number that comes AFTER the number 2. Does anyone want to try and do this?	Allow a moment for children to respond.
“ How do we know that the number (child's name) is pointing to on the number line comes after 2?	*Because it is further from the zero; because it is closer to the twenty; because it is bigger than 2; because it is further along on the number line.*

Head, Shoulders, Knees & Toes Song

“ Today we are going to sing “Head, Shoulders, Knees & Toes” together except this time, we're going to add an extra part at the end!	Sing the song together, adding the “Ankles, Elbows, Seat, and Feet” verse.
“ Now let's count the body parts named in the song. How many heads do you have? How many shoulders? How many knees? How many toes? How many ankles? How many elbows? How many seats? How many feet?	

Head, Shoulders, Knees, and Toes Lyrics (extra verse)

Head, shoulders, knees and toes, knees and toes
Head, shoulders, knees and toes, knees and toes
And eyes and ears and mouth and nose
Head, shoulders, knees and toes, knees and toes

Ankles, elbows, feet and seat, feet and seat,
Ankles, elbows, feet and seat, feet and seat,
And hair and hips and chin and cheeks,
Ankles, elbows, feet and seat, feet and seat.
(Repeat, getting faster each time)

Day 4

Number Scene

“ Now it’s time to play our dice game! Does everyone remember how to play?	Choose a child. The child that you chose comes up and rolls the die. You hold on to the second die. You briefly (for 3 seconds) show all the children the side that the die landed on.
“ Now it is important for you all to try and remember the arrangement of dots I showed you, how many dots make up the arrangement, and the number that the dots count up to. Does anyone have any ideas? I’m going to keep track of all of your number ideas!	Make tally marks on the dry erase board as children shout out their ideas.
“ Together let’s count the dots out loud. Ok, we’ve counted them all now…we have _____ dots altogether. Who wants to find this number on our number line?	Choose a child to find the number on the number line. Then, while displaying the die face, describe the configuration of dots as you have been. (See page 15.)
“ Now let’s look at our tally marks and see how many of you were able to match the dots on the die to the right number. Who can tell me what the tally is for each number?	Choose a child to count the tally marks for each number selected. Congratulate the children who got it right.
“ Who wants a turn at rolling the next die?	Child that you chose comes up and rolls the die. You briefly show (for 3 seconds) all the children the side that the die landed on.
“ Is what I just showed you more or less than what we saw the first time the die was rolled? How do you know this? “ Great thinking everyone. Let’s look at the number line together to see if we’re right.	Point to the numbers on the number line, explaining which number is closer to zero and therefore less and which is closer to the twenty and therefore more.

Day 4

Book Reading ("Pattern Fish")

" Can you tell me about what you see on this book cover? Do you think this cover can tell us something about what this story is about?

Hold the book cover up so all the children can see it. Give children a chance to respond and then read the title.

" Let's find out what this book is about.

Pause on Page 2

" Do you see this pattern: Yellow, Black, Yellow, Black? What color do you think comes next in this pattern?

Give children a chance to respond before turning to Pages 3-4 and confirming the correct answer.

Pause at Page 5

" Can you count the number of dots on the eel? Let's count together – how many are there? 12, that's right.

" Now can you count the stripes on the eel? Let's count together again - how many are there? 6, that's right.

" Which do you think is more – 12 or 6? How can you figure this out?

Pause at Page 33

" This book has something different at the end, it has a page that explains what patterns are, let's read this and then see if we can find any other patterns around our classroom.

Hands-On Center Activities

Shape Dominoes

(10 minutes/Pairs of children)

Materials:

Shape Domino cards (2 sets)

Repeat Week 8 Day 1 hands-on center activity.

Day 4

Hands-On Center Activities

Number Act Out

(10 minutes/Pairs of children)

Materials:

Small Student 0–20 number line (2)
0—11 number cards (2 sets)

Repeat Week 8 Day 1 hands-on center activity.

Review Games that can also be available during this time.

The Fruit Party | Which Has More? (1-9)

All Shape Concentration | Oops! (1-10) | Next?

The Number Tree | Numbo (1-20)

Pattern Match AB and ABB | Which Has More? (0-10)

Shape Zap | Pattern Match AB | Go Fish (1-9) | Numbo (0-5)

Week 9 Grey Week

Full Implementation Week

Objectives

Counting	• Children will learn to count forward to and backward from 20 • Children will learn about cardinality to 8 • Children will learn to count using a 0-20 number line
Shape	• Children will identify a triangle, square, pentagon, circle, rectangle, and hexagon • Children will learn about what sides, curves, and corners (angles) are when identifying different shapes • Children will be able to identify a shape regardless of its orientation.
Number Recognition	• Children will identify numbers from 0-20 • Children will learn how to tally numbers up to 9 • Children will learn to subsitize numbers to 6 • Children will compare sets of numbers to identify which is smaller and which is larger
Pattern	• Children will learn to recognize and create their own simple AB, AABB and ABB patterns

Day 1

Introductory Activity with Visuals

Gotcha!

(25 minutes/ Whole Class)

Materials:

Chart paper
Marker
Small teacher 0 -10 number line
Number lines with numbers 2-8 missing
Tiles for missing numbers (randomly arranged)
Unfix cubes

“ Do I have my Math Detectives here today? Let’s warm up our brains by looking for circles, triangles, squares and rectangles around the room using our eyes. “ Let’s see if we can find 8 examples of shapes all together around the room.	As the children call out shapes that they see around the room, draw them on a piece of chart paper. Once eight shapes are reached, count them out loud with the children.
“ But wait! Let’s pretend that this last shape doesn’t want to be found and runs away.	Draw a large “X” through one of the shapes.
“ How many shapes would we have then? This is a math problem!	Count the remaining shapes arriving at the number 7.
“ Which number is more, 7 or 8? How do you know?	Allow a moment for children to respond.
“ Now we are going to practice our numbers some more with a fun activity! Let’s see who wants to be a detective and find some missing numbers on a number line. “ First though, let’s do some counting using our regular number line.	Count out loud slowly from 0 to 10 encouraging the children to count along using the number line. Then call up one child to point to each number as you count from 0 to 10 again.
“ Now, let’s look at our missing numbers number line. Remember, there are numbers missing and you need to be great number detectives to help find the numbers that are missing.	Show the group the second number line – the one with numbers missing from 2 – 8.

Day 1

“ We will need our number tiles to fill in the missing numbers on this number line!

Next, put the number tiles 2-8 on the floor, face up in random order.

Demonstrating the task: As you demonstrate the task, be surel to:

1. Call a child up to begin counting on the missing number line.
2. As the child begins to count, call children up to the number line to find the number that is missing on the number line from among the tiles on the floor.
3. Encourage children to refer to the completed number line for help.
4. If a child picks up an incorrect number, they can place it back down and try another.
5. Have a set of Unifix cubes available for counting just in case it's needed.
6. As children find the numbers, help place them in the correct place on the number line until all the numbers are filled in and there are two complete number lines from 0-10.
7. Have the children count out loud from 0-10 and back down again.

“ Great number detecting, Math Detectives!

Hands-On Center Activities

Pattern Concentration

(10 minutes/Pairs of children)

Materials:

Pattern Concentration cards (2 sets)

“ Do you remember what we said a pattern was? Can you use clapping to make a pattern?

Allow children a moment to respond, and then clap a pattern for the children to imitate.

Day 1

“ We're going to play our Pattern Concentration game again. Remember everyone will get cards with patterns on them. When it is your turn, turn over any two cards so that the patterns are facing up and look at the cards very closely. Then think about if the patterns on your two cards match each other.	Model putting the cards face down on the table and then turn over two cards.
“ If you find a match, you can keep the pair with you until the end of the game. If you turn over two cards that don't match, turn them back over so that the pattern is face down, but try and remember where those cards are for your next turn. Now it is your partner's turn.	Model finding a pair that matches and a pair that doesn't match.

Hands-On Center Activities

Missing Numbers

(10 minutes/Pairs of children)

Materials:

Student 0 – 20 number line (2)
Student 0 – 20 number lines with missing numbers (4 different number lines; 2 sets)
Tiny number cards to put on number line (4 sets)

“ Now we're going to play our number line game again. Remember that a number line is a line of numbers that start at the smallest amount, and goes up to the largest amount? This number line starts at zero, and goes all the way up to 20. Let's read this number line out loud.	Point to 0, and 20 and all of the numbers as you count out loud.
“ The number lines that I have here are missing some numbers. We are going to work together to fill in the missing numbers with these small cards.	Model using the tiny number cards to replace the missing number on one of the number lines. Model using the full (complete) number line to help decide which number is missing.

Day 1

Review Games that can also be available during this time.

Sort and Count | Number Path

The Fruit Party | Which Has More? (1-9)

All Shape Concentration | Oops! (1-10) | Next?

The Number Tree | Numbo (1-20)

Pattern Match AB and ABB | Which Has More? (0-10)

Shape Zap | Pattern Match AB | Go Fish (1-9) | Numbo (0-5)

Day 2

Guided Challenge Game Play

(25 minutes/ Whole Class)

Materials:

Circle sign
Square sign
Triangle sign
Pentagon sign
Pattern blocks
Crayons
Combined shape sign
White paper
Tray

Game Description:

Sizing up Shapes

Children learn to size up their shapes by grouping like shapes together, understanding that differences in size, orientation, materials, and color do not change the essence of the shape. Using pattern blocks, they have the opportunity to combine the same and different shapes to create new and other shapes and then recreate them on paper.

- “ Today we are going to play a new math game. Similar to the last time, I will show you how to play the game. Later, you will have the chance to play this same game, with a partner, during center time.
- “ Today’s new math game is called “Sizing Up Shapes.” It is a game about shapes. As I show you how the game is played please watch carefully so you’ll know what to do when you play with a partner during center time. Some of you will have a chance to try out the game with a partner now.
- “ Before we begin playing the game, let’s see what shapes we remember.

Show example signs of a square, triangle, and pentagon. Call on volunteers to name each shape and point out the sides and corners (angles). Return to each shape varying the orientation (turn shapes upside down, on their side) letting children know that no matter which way the shape is turned or what size it is (big, small, or in-between), it remains the same shape.

- “ How about this shape? What can you tell me about this shape?

Show an example of a circle. Have children identify it. Talk about sides, corners, orientation. (Circles have no sides or corners.) Let children know that another way of saying a circle is “completely round” is that it is one continuous curve.

Day 2

“ Now let’s take a look at our pattern blocks.	Select children to pick out the different shapes in the pattern block set including a trapezoid, square and triangle. Name the two parallelograms (or diamonds) even though they may not have been named previously.
“ Did you know that we can make different shapes from the ones we have just named? Who thinks they know how to use squares to make a rectangle?	If no one volunteers, show the children that 2 squares placed side by side make a rectangle. Do this by placing a piece of white paper on top of a tray and placing the two shapes together for the entire class to see.
“ Now that I’ve made my rectangle, I am going to draw around it to show the new shape.	Show children how to document their new shape by drawing around each piece to create the new shape using a crayon on the sheet of paper.
“ What about making a hexagon?	Model making a hexagon and tracing it by placing two trapezoids together with their bases touching.
“ Remember to call out the names of the shapes as we make new ones. When you’re working with your partner during center time. I will leave up pictures of the shapes [combined shape sign] you can work on creating together. “ After we’ve spent some time making these real shapes out of our pattern blocks, we can then spend some time making up our own silly shapes. We can even name them!	**Demonstrating the game:** As you demonstrate the game, be sure to: 1. Rotate shapes while noting they’re the same shape whether they’re upside down, on their sides, etc. 2. Note that another way of saying a circle is “completely round” is that it is one continuous curve. 3. Remember to leave up pictures of each shape (circle, triangle, square, pentagon, trapezoid) so that children can refer to these when creating their own shapes.
“ When you play during center time, you’ll be working with a partner. Remember to say, out loud, the names of the shapes and to help each other as you create new shapes. As you play the game, I will be walking around to see if you need help.	

Day 3

Hands-On Center Activities

Pattern Concentration

(10 minutes/Pairs of children)

Materials:

Pattern Concentration cards (2 sets)

Repeat Week 9 Day 1 hands-on center activity.

Hands-On Center Activities

Missing Numbers

(10 minutes/Pairs of children)

Materials:

Student 0 – 20 number line (2)
Student 0 – 20 number lines with missing numbers (4 different number lines; 2 sets)
Tiny number cards to put on number line (4 sets)

Repeat Week 9 Day 1 hands-on center activity.

Review Games that can also be available during this time.

Sort and Count | Number Path

The Fruit Party | Which Has More? (1-9)

All Shape Concentration | Oops! (1-10) | Next?

The Number Tree | Numbo (1-20)

Pattern Match AB and ABB | Which Has More? (0-10)

Shape Zap | Pattern Match AB | Go Fish (1-9) | Numbo (0-5)

Day 3

Math Detective Journal with Easy Game Play

(15 minutes/ Small Group)

Materials:

Math Detective Journals
Teacher Journal pages 9.1 – 9.5
Small teacher 0–20 number line
0–20 large number cards
Crayons
Numberless number line
0–20 number tiles

Math Detective Journal

" Before we work in our Math Detective Journals we are going to play a number game called "Name that Number." I have a collection of cards. Each card contains a number. I am going to mix the cards up, pick one from the collection and see if you can "Name that Number."	**Demonstrating the task:** As you demonstrate the task, be sure to: 1. Give children as many opportunities as possible to recognize the numbers in the collection of cards. 2. If (when) numbers 2, 4, and 8 are selected and named, put them aside for the second part of this activity. 3. Have the children identify at least 10 numbers.
" Now let's look at our number line. What can you tell me about our number line?	*There are numbers on the number line. The numbers are in order. The biggest number is at the extreme right end of the line. The smallest is at the extreme left end of the line.*
" Great Job! Now, let's count from 0 – 20 using the number line to help us.	Have the children count from 0 to 20, using the number line.
" That was great counting! Let's do some more!	Have children count from 0 to 8; then have children count backwards from 8 to 0. Then have them count forwards from 0 to 4; and then backwards from 4 to 0. Finally have them count forwards from 0 to 2.
" Which number is bigger 2, 4, or 8? How do you know?	If they need help, be sure to tell them about the location of the largest number on the number line (as you go up from 0 the numbers are getting bigger) and the location of the smallest number on the number line (as you count backwards the numbers are getting smaller).
" So, which number is bigger 2, 4, or 8?	Have them sky write number 2, then 4, then 8. Call children up to locate 2, then 4, then 8, then 0, then 20 on the number line.

Day 3

“ Now you are going to use your Math Detective Journals to be Math Detectives for the numbers 2, 4, and 8!

Demonstrating the task: As you demonstrate the task, be sure to:

1. Have the children turn to the next empty page in their Math Detective Journals.
2. On the first empty page have each child write the number 2.
3. On the next empty page have each child write the number 4.
4. On the next empty page have each child write the number 8.
5. Explain to them that they will be making their own page of “2”. That means that they are going to make 2 dots (like on dice), 2 tally marks (similar to what they’ve done counting shapes), and 2 of anything else they would like to draw using shapes, figures or anything else they can think of. Demonstrate using Teacher Journal page 9.1
6. Once they have finished their page of 2, they will be making their own page of “4” by making 4 dots (like on dice), 4 tally marks (similar to what they’ve done counting shapes), and 4 of anything else they would like to draw using shapes, figures or anything else they can think of. Demonstrate using Teacher Journal page 9.2.
7. Once they have finished their page of 4, they will be making their own page of “8” by making 8 dots (like on dice), 8 tally marks (similar to what they’ve done counting shapes), and 8 of anything else they would like to draw using shapes, figures or anything else they can think of. Demonstrate using Teacher Journal page 9.3.

Using Teacher Journal page 9.4 and 9.5 have children compare a set of 2 to a set of 4 to a set of 8 and identify which is smaller or less and talk about how they know which is larger and which is smaller.

Easy Game Play :

Oops (0–20)!

“OOPS did I make a mistake?” is the question a pair of players will have to ask themselves as they take turns drawing random number cards from a face down collection. Together they work to arrange the drawn numbers on a blank number line in the correct sequential order.

“ Today we are going to play a math game you have played before using our number line that extends from the number zero all the way up to the number 20.

Show the children the 0-20 number line.

“ Does anyone want to volunteer to come up and count up to 20 on our number line?

“ Great job counting on the number line!

Day 3

“ This is another game that you will play with a partner. You and your partner will be given a number line that looks like this except it will have NO NUMBERS written on it! Have any of you seen a number line that has no numbers?	Hold up the 0–20 number line.
“ You will also have a bunch of tiles that have the numbers 0–20 written on them. For this game you and your partner will take turns picking one tile from a facedown pile of tiles and then figuring out where on the blank number line you think the number belongs. “ Let’s play a bit together. Here is my blank number line. I am going to take a tile from the pile.	Based on what is drawn from the pile, explain to the children the logic in figuring out where the card belongs. Below is an example of what you could say if you drew a number 3 from the pile.
“ Who can tell me what number I picked? That’s right…..it is a 3. Where do you think that the 3 would go on my 0-20 number line? Do you think it belongs towards the beginning or do you think it belongs towards the end? How do we know? “ During this game, if you get confused and want to move a number that you already put down to a different spot on the number line, all you have to do is say “OOPS” and then instead of picking a new tile from the pile on your turn, you can move a number tile that you already put down.	Demonstrate an example of putting the potential number 3 you drew from the pile all the way at the end of the number line and then in an exaggerated manner, picking it up and moving it closer towards where it actually belongs.
“ How do you know when this game is finished?	Allow a moment for children to respond.
“ When there are no more tiles in our pile and they are all on our blank number line, you will know the game is finished. Then you can look at our regular number line and make sure that it looks the same as the one you and your partner just made! “ When you play during center time, you’ll be working with a partner. Remember to say, out loud, the names of the number as you pick from the pile. As you play the game, I will be walking around to see if you need help.	

Day 3

Hands-On Center Activities

Pattern Concentration

(10 minutes/Pairs of children)

Materials:

Pattern Concentration cards (2 sets)

Repeat Week 9 Day 1 hands-on center activity.

Hands-On Center Activities

Missing Numbers

(10 minutes/Pairs of children)

Materials:

Student 0–20 number line (2)
Student 0–20 number lines with missing numbers (4 different number lines; 2 sets)
Tiny number cards to put on number line (4 sets)

Repeat Week 9 Day 1 hands-on center activity.

Review Games that can also be available during this time.

Sort and Count | Number Path | The Fruit Party
Which Has More? (1-9) | All Shape Concentration
Oops! (1-10) | Next? | The Number Tree | Numbo (1-20)
Pattern Match AB and ABB | Which Has More? (0-10)
Shape Zap | Pattern Match AB | Go Fish (1-9) | Numbo (0-5)

Day 4

Weekly Math Circle Routine With Guided Reading

(25 minutes/ Whole Class)

Materials:

Small teacher 0–20 number line
Small piece of paper or post-it to cover a number on the number line
Dry erase board
Dry erase markers
10 Little Numbers lyrics
Large dice
Color Zoo book

Optional: Use web link http://www.youtube.com/watch?v=dk9Yt1PqQiw to stream audio/video of 10 Little Numbers on any web-enabled device.

Number Line Time

“ Now we are going to work with numbers on a number line again. Remember that numbers on a number line always go in order. The 1 comes after the zero, the 2 comes after the 1. Who can tell us what comes after the 2? After the 3? After the 4?	Point to the numbers on the number line.
“ On the number line, the numbers get bigger in this direction. The smallest number on this number line is 0 and the biggest is 20. The number 20 is the farthest away from the 0.	Slide your finger under the line, moving to the right.
“ First, we are going to work together to find the number 6 and the number 20 on the number line that I am holding up. Who thinks they can come up and point to these numbers?	Allow a moment for children to respond.
“ Now who thinks they can find a number that is MORE than the number 0? Does anyone want to come and try? “ How do we know that the number (child’s name) is pointing to on the number line is more than 0?	*Because it is further from the zero; because it is closer to the twenty; because it is bigger than 0; because it is further on the number line.*
“ Next I am going to hide a number on our number line. Can anyone tell us what number is missing?	Place a small piece of paper or a Post-it Note over the number 3 and allow a moment for children to respond.

Day 4

- That was really great. For this next part of our activity, we are going to count out loud together. We'll start with the number zero and go up until the number 20 and then start at the number 10 and go back down to zero while we look at our number line. I am going to keep track of how many numbers we say by making tally marks on the dry erase board.
- The last thing we're going to do with our number line right now is try and point to a number that comes BEFORE the number 8. Does anyone want to try and do this?
- How do we know that the number (child's name) is pointing to on the number line comes before 8?

Because it is closer to the zero; because it is further from the twenty; because it is smaller than 8; because it is not as far along on the number line.

10 Little Numbers Song

- Now we are going to sing our "10 Little Numbers" song together. Remember, I will say the words first. You will repeat after me and then we'll be ready to sing the song together.

As you sing along with the children encourage them to count along using their fingers.

10 Little Numbers (to the tune of 10 Little Indians)

Verse 1

One little, two little, three little numbers
Four little, five little, six little numbers
Seven little, eight little, nine little numbers
Ten little numbers

Verse 2

Ten little, nine little, eight little numbers,
Seven little, six little, five little numbers
Four little, three little, two little numbers
One little number

Number Scene

- Now it's time to play our dice game! Does everyone remember how to play?

Choose a child. The child that you chose comes up and rolls the die. You hold on to the second die. You briefly (for 2 seconds) show all the children the side that the die landed on.

Day 4

“ Now it is important for you all to try and remember the arrangement of dots I showed you, how many dots make up the arrangement, and the number that the dots count up to. Does anyone have any ideas? I’m going to keep track of all of your number ideas!	Make tally marks on the dry erase board as children shout out their ideas.
“ Together let’s count the dots out loud. OK, we’ve counted them all now … we have _____ dots altogether. Who wants to find this number on our number line?	Choose a child to find the number on the number line. Then, while displaying the die face, describe the configuration of dots as you have been. (See page 15.)
“ Now let’s look at our tally marks and see how many of you were able to match the dots on the die to the right number. Who can tell me what the tally is for each number?	Choose a child to count the tally marks for each number selected. Congratulate the children who got it right.
“ Who wants a turn at rolling the next die?	Child that you chose comes up and rolls the die. You briefly (for 2 seconds) show all the children the side that the die landed on.
“ Is what I just showed you more or less than what we saw the first time the die was rolled? How do you know this? “ Great thinking everyone. Let’s look at the number line together to see if we’re right.	Point to the numbers on the number line, explaining which number is closer to zero and therefore less and which is closer to the twenty and therefore more.

Day 4

Book reading ("Color Zoo")

❝ Can you tell me about what you see on this book cover? Do you think this cover can tell us something about what this story is about?

Hold the book cover up so all the children can see it. Give children a chance to respond before reading the title.

❝ Let's find out what this book is about.

Pause on Page 5

❝ Let's find the triangles, circles, and square in this animal picture. Which shapes have curved sides? Which shapes have corners (angles)?

Pause at Page 15

❝ Let's name and count the colors in this animal picture.

Pause at Page 24

❝ Does anyone know what a hexagon looks like? Let's count how many sides it has. What about corners (angles)? So, a hexagon has 6 sides and 6 corners (angles).

At the end of the book

❝ How many different animals did we see in this book? Let's count them out loud together. And what about shapes, did we see any shapes? How many do you think we saw? Can you name them all?

Hands-On Center Activities

Pattern Concentration

(10 minutes/Pairs of children)

Materials:

Pattern Concentration cards (2 sets)

Repeat Week 9 Day 1 hands-on center activity.

Day 4

Hands-On Center Activities

Missing Numbers

(10 minutes/Pairs of children)

Materials:

Student 0 – 20 number line (2)
Student 0 – 20 number lines with missing numbers (4 different number lines; 2 sets)
Tiny number cards to put on number line (4 sets)

Repeat Week 9 Day 1 hands-on center activity.

Review Games that can also be available during this time.

Sort and Count | Number Path | The Fruit Party
Which Has More? (1-9) | All Shape Concentration
Oops! (1-10) | Next? | The Number Tree | Numbo (1-20)
Pattern Match AB and ABB | Which Has More? (0-10)
Shape Zap | Pattern Match AB | Go Fish (1-9) | Numbo (0-5)

Full Implementation Week

Objectives

Counting	• Children will learn to count forward and backward to 20 • Children will learn about cardinality to 19 • Children will learn to count using a 0-20 number line
Shape	• Children will identify a triangle, square, circle, hexagon, rectangle, pentagon and trapezoid by looking and by touching • Children will learn about what corners (angles) and curves are when identifying different shapes
Number Recognition	• Children will identify numbers from 0-20 • Children will learn how to tally numbers up to 9 • Children will learn to subsitize numbers to 6 • Children will compare sets of numbers to identify which is smaller and which is larger
Pattern	• Children will learn to create their own simple AB, AABB, and ABB patterns • Children will be able to fill in missing portions of AB, AABB, and ABB patterns

Day 1

Introductory Activity with Visuals

Gotcha?

(25 minutes/ Whole Class)

Materials:

Chart paper
Markers (2 different colors)
Small teacher 0 -10 number line

“ Do you remember from last time, that sometimes I make mistakes when I count? I want you to listen carefully and see if you hear any mistakes. If you do I want you to say ‘Gotcha!’ and raise your hand. I will call on someone to tell me about the mistake. “ Are you ready to listen carefully, Math Detectives?	Begin counting from 0 up to 9, making one of the following errors: 1. Omitting a number (0, 1, 2, 3, 4, 6) 2. Repeating a number (0, 1, 2, 3, 4, 5, 5, 6, 7) 3. Naming something that is not a number (0, 1, 2, 3, 4, finger, six) 4. Giving a wrong name for a number (0, 1, 2, 3, 4, 5, 6, sevelenennon, 8, 9)
“ Did you hear a mistake?	Ask in a surprised voice after a number of hands are raised. Call on a child to identify and correct the mistake before moving on to the next count.
“ Great listening! Now, I’m going to count backwards. Get ready to listen for any mistakes.	Begin counting backwards from the number 9 down to 0, making one of the following errors: 1. Omitting a number (5, 4, 2, 1, 0) 2. Repeating a number (9, 8, 7, 6, 6, 5, 4), 3. Naming something that is not a number (9, 8, 7, Q, 5) 4. Giving a wrong name for a number (9, 8, sevelenennon, 6, 5, 4)
“ Did you hear a mistake?	Ask in a surprised voice after a number of hands are raised. Call on a child to identify and correct the mistake before moving on to the next count.
“ That was some great math detecting. Let’s talk a little more about our numbers.	Discuss what reverse order is - starting at the bigger number, 9, and ending at a smaller number, 5.
“ Finally, let’s do some more counting!	Count from 10 to 0 using the number line for reference, then count from 0 to 10 using the number line for reference.

Day 1

“ Now we’re going to move on to some shapes. Sometimes I make mistakes with my shapes too. Look carefully at the shapes I draw and raise your hand and say “Gotcha” if you see a mistake	Draw shapes with different mistakes: 1. A triangle with a squiggly third side. 2. A rectangle with a dotted forth side. 3. A square with a zigzag four side.
“ Did you see a mistake?	Ask in a surprised voice after a number of hands are raised. Call on a child to identify and correct the mistake in a different color marker, and tell the class how many sides the shape has. Repeat with the other shapes.
“ That was some great listening and looking, Math Detectives!	

Hands-On Center Activities

Dot to Number Concentration

(10 minutes/Pairs of children)

Materials:

Dot to Number Concentration cards (2 sets)

“ Now we’re going to play the game where we match dots and numbers together. “ Remember that first we are going to look at a card and see if we know (without counting) the number of dots on it. And then we’re going to try and match it to a card that has the right number on it.	Show a card and see if the children recognize the number of dots without counting. Then ask children to count the number of dots to confirm their ideas. Then show children the card with the corresponding number.
“ For example, if my dot card has 3 dots on it, then I will look for a card with the number 3 written on it.	Hold up the card with 3 dots and the card with the number 3. Then model how you would flip over the cards to look for a match.

Day 1

Hands-On Center Activities

What's in the Bag?

(10 minutes/Pairs of children)

Materials:

Opaque fabric bag
Pattern blocks

- "Now we're going to play afun detective game again. Remember that for this game, each of you will have to use only your hands to tell us what shape something is.
- "I am going to put these shapes into a bag and then you will each have a turn to put your hand into the bag and feel a shape. Tell us what you feel. Is it round or does it have pointy edges? How many sides does it have? Hold onto the shape as you describe it and your partner tries to guess what it is. After your partner has had the chance to guess what shape you are holding, you can pull your shape out of the bag and show her.

If reinforcement is necessary, show and identify each shape as you're placing it into the bag. Put your hand in the bag and describe a shape, showing the shape to children after someone guesses correctly.

Review Games that can also be available during this time.

Sizing up Shapes | Oops! (0-20) | Sort and Count
Number Path | The Fruit Party | Which Has More? (1-9)
All Shape Concentration | Oops! (1-10) | Next?
The Number Tree | Numbo (1-20) | Pattern Match AB and ABB
Which Has More? (0-10) | Shape Zap | Pattern Match AB
Go Fish (1-9) | Numbo (0-5)

Day 2

Guided Challenge Game Play

(25 minutes/ Whole Class)

Materials:

AB pattern signs
ABB pattern signs
Pattern Match AB and ABB boards (4 versions)
Cover chips
Pattern Match calling cards

Game Description:

Pattern Match AB and ABB

Pattern Match is a board game that children play in pairs. One child calls out the pattern by naming the parts of the pattern on the card they choose from a pile. The other player fills out the Pattern Match board matching the pattern called out to its equivalent on the board. A set of "cover chips" are included as part of the game along with 4 different boards. When the entire board is covered with chips, the game is won and the pairs switch roles.

- " Today we are going to play a familiar math game. Similar to the last time, I will show you how to play the game. Later, you will have the chance to play this same game, with a partner, during center time.
- " Today's math game is called "Pattern Match." We played a version of this game before. It is a game about patterns. As I show you how the game is played, please watch carefully so you'll know what to do when you play with a partner during center time. Some of you will have a chance to try out the game now with a partner.

Select two children to help demonstrate how the game is played.

- " For this game, one of you will pick patterns from a stack of pattern cards and read the pattern by naming each of the parts that you see on the card. Your partner will cover the pattern on her board when she hears the pattern read that matches. If you have any trouble matching the pattern on the card to a pattern on your game board, ask your partner or a teacher to help you.
- " Now I'm going to show you how to play.

Demonstrate by drawing a pattern card and reading the pattern signs out loud in an exaggerated manner.

Day 2

“ So let’s see what is on this card that I just picked up. It looks like a circle, then a triangle, then another circle and another triangle.

Have the children repeat this pattern description after you. Do this again if necessary.

Then, also in an exaggerated manner, look at the pattern board and point to the pattern that was chosen. Take a cover chip and place it over the pattern on the board.

Demonstrating the game: As you demonstrate the game, be sure to:

1. Identify AB and ABB patterns that are on some of the game boards.
2. Remind children to take turns calling out the patterns and finding the patterns on their playing board.

“ When your whole board is covered, you can yell out Pattern Match!!

“ Then you and your partner switch and the other person will pick the cards from the stack.

“ When you play during center time, you’ll be working with a partner. Remember to say out loud the patterns that you see, take turns and help each other as you play the game. As you play the game, I will be walking around to see if you need help.

Hands-On Center Activities

Dot to Number Concentration

(10 minutes/Pairs of children)

Materials:

Dot to Number Concentration cards (2 sets)

Repeat Week 10 Day 1 hands-on center activity.

Day 3

Hands-On Center Activities

What's in the Bag?

(10 minutes/Pairs of children)

Materials:

Opaque fabric bag
Pattern blocks

Repeat Week 10 Day 1 hands-on center activity.

Review Games that can also be available during this time.

Sizing up Shapes | Oops! (0-20) | Sort and Count
Number Path | The Fruit Party | Which Has More? (1-9)
All Shape Concentration | Oops! (1-10) | Next?
The Number Tree | Numbo (1-20) | Pattern Match AB and ABB
Which Has More? (0-10) | Shape Zap | Pattern Match AB
Go Fish (1-9) | Numbo (0-5)

Day 3

Math Detective Journal with Easy Game Play

(15 minutes/ Small Group)

Materials:

Math Detective Journals
Teacher Journal pages 10.1 – 10.5
0 – 20 large number cards
Small teacher 0 -20 number line
Crayons
Numbo boards (6 versions)
Number calling cards (1-20)
Cover chips
Small student 0-20 number line (2)

Math Detective Journal

“ Before we work in our Math Detective Journals we are going to play a number game called “Name that Number.” I have a collection of cards. Each card contains a number. I am going to mix the cards up, pick one from the collection and see if you can “Name that Number.”

Demonstrating the task: As you demonstrate the task, be sure to:

1. Give children as many opportunities as possible to recognize the numbers in the collection of cards.
2. If (when) numbers 3, 7, and 9 are selected and named, put them aside for the second part of this activity.
3. Have the children identify at least 10 numbers.

“ Now, let’s look at our number line. What can you tell me about our number line?

There are numbers on the number line. The numbers are in order. The biggest number is at the extreme right end of the line. The smallest is at the extreme left end of the line.

“ Great Job! Now, let’s count from 0 – 20 using the number line to help us.

Have the children count from 0–20 using the number line.

“ That was great counting! Let’s do some more!

Have children count from 0 to 9; then have children count backwards from 8 to 0. Then have them count forwards from 0 to 7; and then backwards from 4 to 0. Finally have them count forwards from 0 to 3.

Day 3

“ Which number is bigger 3, 7, or 9? How do you know?	If they need help be sure to tell them about the location of the largest number on the number line (as you go up from 0 the numbers are getting bigger) and the location of the smallest number on the number line (as you count backwards the numbers are getting smaller).
“ So, which number is bigger 3, 7, or 9?	Have them sky write number 3, then 7, then 9. Call children up to locate 3, then 7, then 9, then 0, then 20 on the number line.
“ Now you are going to use your Math Detective Journals to be Math Detectives for the numbers 3, 7, and 9!	**Demonstrating the task:** As you demonstrate the task, be sure to: 1. Have the children turn to the next empty page in their Math Detective Journals. 2. On the first empty page have each child write the number 3. 3. On the next empty page have each child write the number 7. 4. On the next empty page have each child write the number 9. 5. Explain to them that they will be making their own page of “3”. That means that they are going to make 3 dots (like on dice), 3 tally marks (similar to what they’ve done counting shapes), and 3 of anything else they would like to draw using shapes, figures or anything else they can think of. Demonstrate using Teacher Journal page 10.1. 6. Once they have finished their page of 7, they will be making their own page of “7” by making 7 dots (like on dice), 7 tally marks (similar to what they’ve done counting shapes), and 7 of anything else they would like to draw using shapes, figures or anything else they can think of. Demonstrate using Teacher Journal page 10.2. 7. Once they have finished their page of 9, they will be making their own page of “9” by making 9 dots (like on dice), 9 tally marks (similar to what they’ve done counting shapes), and 9 of anything else they would like to draw using shapes, figures or anything else they can think of. Demonstrate using Teacher Journal page 10.3. Using Teacher Journal page 10.4 have children compare a set of 3 to a set of 7 to a set of 9 and identify which is smaller or less and talk about how they know which is larger and which is smaller.

Easy Game Play:

Numbo (1–20)

Partners take turns in this alternate version of the game BINGO. One child will select a number from a box and say the number chosen out loud to their partner. The other child will find this number on their NUMBO card and will cover it with a cover chip. When the entire board is covered with chips, the game is won. The partners then switch roles and play again.

Day 3

- “ Today we are going to revisit a math game we played before. Similar to the last time, I will show you how to play the game. Later, you will have the chance to play this same game, with a partner, during center time.
- “ Remember, this math game is called “Numbo” and it is a game about counting and naming numbers. I will remind you how the game is played - please watch carefully so you’ll know what to do when you play with a partner during center time. Some of you will have a chance to try out the game with a partner now.
- “ Remember from last time, this is a Numbo playing board. As you can see, this one has a lot of numbers written on it. I will read out loud all of the numbers on the Numbo board.

Name and point to each number on the Numbo board.

- “ Like last time, I will now point to the numbers and I want you to say the name of the number out loud to me!

Point to the numbers and have the children name the numbers out loud.

- “ Who can count out the number of unifix cubes when I say a number out loud?

Allow at least two rounds where you say a number from the Numbo board and a child counts out the corresponding number of unifix cubes.

Once children seem familiar with the numbers, select two volunteers to demonstrate how the game is played for the rest of the group.

- “ Remember in this game, one of you will pick numbers and read the number on the card out loud to your partner. Then your partner will cover the number you just read on her board.

Demonstrate reaching into a bag or container, picking out a number and saying it out loud. Then in an exaggerated manner, look at the number card and point to the number that was selected. Next take a cover chip and place it on the board over that number—a process similar to standard BINGO.

- “ When your whole board is covered you can yell out ‘Numbo!’
- “ Then you and your partner switch and the other person will pick the cards.
- “ When you play during center time, you’ll be working with a partner. You and your partner will need to remember to count out loud. As you play the game, I will be walking around to see if you need help.

Day 3

Hands-On Center Activities

Dot to Number Concentration

(10 minutes/Pairs of children)

Materials:

Dot to Number Concentration cards (2 sets)

Repeat Week 10 Day 1 hands-on center activity.

Hands-On Center Activities

What's in the Bag?

(10 minutes/Pairs of children)

Materials:

Opaque fabric bag
Pattern blocks

Repeat Week 10 Day 1 hands-on center activity.

Review Games that can also be available during this time.

Sizing up Shapes | Oops! (0-20) | Sort and Count
Number Path | The Fruit Party | Which Has More? (1-9)
All Shape Concentration | Oops! (1-10) | Next?
The Number Tree | Numbo (1-20) | Pattern Match AB and ABB
Which Has More? (0-10) | Shape Zap | Pattern Match AB
Go Fish (1-9) | Numbo (0-5)

Day 4

Weekly Math Circle Routine With Guided Reading

(25 minutes/ Whole Class)

Materials:

Small teacher 0 - 20 number line
Small piece of paper or post-it to cover a number on the number line
Dry erase board
Dry erase markers
Head, shoulders, knees, and toes lyrics
Large dice
Busy Bugs book

Optional: Use web link http://www.myvoxsongs.com/heads-shoulders-knees-and-toes.html of Head, Shoulders, Knees, and Toes to stream audio/video on any web-enabled device.

Number Line Time

“ Now we are going to work with numbers on a number line again. Remember that numbers on a number line always go in order. The 1 comes after the zero, the 2 comes after the 1. Who can tell us what comes after the 2? After the 3? After the 4?	Point to the numbers on the number line.
“ On the number line, the numbers get bigger in this direction. The smallest number on this number line is 0 and the biggest is 20. The number 20 is the farthest away from the 0.	Slide your finger under the line, moving to the right.
“ First, we are going to work together to find the number 3 and the number 9 on the number line that I am holding up. Who thinks they can come up and point to these numbers? “ Now who thinks they can find a number that is LESS than the number 7? Does anyone want to come and try?	Allow a moment for children to respond.
“ How do we know that the number (child’s name) is pointing to on the number line is less than 7?	*Because it is closer to the zero; because it is farther from the twenty; because it is smaller than the 7; because it is not as far along the number line.*
“ Next I am going to hide a number on our number line. Can anyone tell us what number is missing?	Place a small piece of paper or Post-it Note over the number 4.

Day 4

“ That was really great. For this next part of our activity, we are going to count out loud together. We'll start with the number zero and go up until the number 20 and then start at the number 10 and go back down to zero while we look at our number line. I am going to keep track of how many numbers we say by making tally marks on the dry erase board.

“ The last thing we're going to do with our number line right now is try and point to a number that comes AFTER the number 1. Does anyone want to try and do this?

Allow a moment for children to respond.

“ How do we know that the number (child's name) is pointing to on the number line comes after 1?

Because it is further from the zero; because it is closer to the twenty; because it is bigger than 1; because it is further along on the number line.

Head, Shoulders, Knees & Toes Song

“ Today we are going to sing “Head, Shoulders, Knees & Toes” together, except this time; we're going to add the extra part at the end!

Add verse “Ankles, Elbows, Seat, and Feet”.

“ Now let's count the body parts named in the song. How many heads do you have? How many shoulders? How many knees? How many toes? How many ankles? How many elbows? How many seats? How many feet?

Head, Shoulders, Knees, and Toes Lyrics (extra verse)

Head, shoulders, knees and toes, knees and toes
Head, shoulders, knees and toes, knees and toes
And eyes and ears and mouth and nose
Head, shoulders, knees and toes, knees and toes

Ankles, elbows, feet and seat, feet and seat,
Ankles, elbows, feet and seat, feet and seat,
And hair and hips and chin and cheeks,
Ankles, elbows, feet and seat, feet and seat.
(Repeat, getting faster each time)

Number Scene

“ Now it's time to play our dice game! Does everyone remember how to play?

Choose a child. The child that you chose comes up and rolls the die. You hold on to the second die. You briefly (for 2 seconds) show all the children the side that the die landed on.

Day 4

“ Now it is important for you all to try and remember the arrangement of dots I showed you, how many dots make up the arrangement, and the number that the dots count up to. Does anyone have any ideas? I’m going to keep track of all of your number ideas!	Make tally marks on the dry erase board as children shout out their ideas.
“ Together let’s count the dots out loud. Ok, we’ve counted them all now…we have _____ dots altogether. Who wants to find this number on our number line?	Choose a child to find the number on the number line. Then, while displaying the die face, describe the configuration of dots as you have been. (See page 15.)
“ Now let’s look at our tally marks and see how many of you were able to match the dots on the die to the right number. Who can tell me what the tally is for each number?	Choose a child to count the tally marks for each number selected. Congratulate the children who got it right.
“ Who wants a turn at rolling the next die?	Child that you chose comes up and rolls the die. You briefly show (for 2 seconds) all the children the side that the die landed on.
“ Is what I just showed you more or less than what we saw the first time the die was rolled? How do you know this? “ Great thinking everyone. Let’s look at the number line together to see if we’re right.	Point to the numbers on the number line, explaining which number is closer to zero and therefore less and which is closer to the twenty and therefore more.

Day 4

Book Reading ("Busy Bugs")

" Can you tell me what you see on this book cover?	Hold the book cover up so all the children can see it. Read the title.
" This is a pattern. Do you know what it means when something is called a pattern?	Point out a pattern on the book cover: small brick, large brick, small brick, large brick.
" Remember we said a pattern is an arrangement of repeated parts. The arrangement is predictable – meaning that it happens over and over again. Once you read the pattern, you can tell what is going to come next. " Can you find a pattern in the room? " Great pattern detecting! Keep an eye out for patterns as we read our book. **Pause at pages 12-13** " Can you find the pattern in the flowers? Let's say the pattern out loud together.	The pattern is "Red, red, blue, blue, red, red…" Act out an AABB pattern with gestures (e.g., tap head twice, then tap shoulders twice).
Pause at pages 16-17 " Can you find the pattern in the fireflies?	Off the page, continuing from the first firefly on page 16, the pattern is two fireflies with yellow eyes, one firefly with green eyes—this is an AAB pattern.
Pause at pages 24-25 " Let's act out the ant dance pattern. Who remembers what it looks like?	Act out by standing up and repeating the ant dance pattern: hop, hop, slide. Have children stand up and repeat the ant dance with you.

Hands-On Center Activities

Dot to Number Concentration

(10 minutes/Pairs of children)

Materials:

Dot to Number Concentration cards (2 sets)

Repeat Week 10 Day 1 hands-on center activity.

Day 4

Hands-On Center Activities

What's in the Bag?

(10 minutes/Pairs of children)

Materials:

Opaque fabric bag
Pattern blocks

Repeat Week 10 Day 1 hands-on center activity.

Review Games that can also be available during this time.

Sizing up Shapes | Oops! (0-20) | Sort and Count
Number Path | The Fruit Party | Which Has More? (1-9)
All Shape Concentration | Oops! (1-10) | Next?
The Number Tree | Numbo (1-20) | Pattern Match AB and ABB
Which Has More? (0-10) | Shape Zap | Pattern Match AB
Go Fish (1-9) | Numbo (0-5)