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

Hands-On Center Activities

Number Act-Out

(25 minutes/ Whole Class)

Materials:

Student 0–10 number line (2)
0–6 number cards (2 sets)

or

Activity Group

Computer Center Activities

(10 minutes/3 times a week/ Pairs of children)

Materials:

Laptops
Headphones
Huff-Puff-a-Tron game
Ribbit game
Trapezoid sign
Pentagon sign
AB Pattern signs
ABB Pattern signs
AABB pattern signs

Huff-Puff-a-Tron

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.

For Video Co-Viewing activities, the scripts correspond with specific pause points in the episode videos. We indicate these points with a number (such as **1**) that appears on the video and in the guide. You should pause the video and follow the corresponding script in the guide. See example script below.

What you say	What you do
“ We're going to be watching a short video. Our job is to find the math in it—can you help me do that?	Wait for students to respond yes. Encourage by nodding your head yes.
“ 3 OK, time to be detectives—can anyone see the math here? Did you know that learning about shapes like circles or triangles is part of learning about math? Can you name these shapes?	Point to each shape on the screen and encourage (or help) all children to name each one.
Pause	
“ What shape is that? Do you think there is a number that has that same shape? What is it?	*Zero, “o,” circle.*
	Student Response

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

Callout Boxes

Episode Synopsis:

The Dirt on Dirt (Sid the Science Kid)

In an Earth Day themed episode, Sid wants to know what makes dirt so dirty. At school, Sid and his friends discover that dirt is really important to the Earth because it helps things grow, and it's also filled with tiny rocks, pieces of leaves, and even living things like bugs and worms!

Educational Objective: To introduce the concept of being a detective.

Week 6 Green Week

Full Implementation Week

Objectives

Counting	• Children will learn to count numbers to16 • Children will leart to count numbers to 12 in forward and reverse order • Children will learn to count numbers on a 0–20 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 12
Pattern	• Children will learn to create their own simple AB, AABB and ABB patterns

Episode Synopsis:

Termite Towers (Cat in the Hat)

Sally and Nick just can't seem to keep their block tower from toppling over. The Cat in the Hat takes them to meet some expert tower builders: the termites! After shrinking down to bug-size, they learn from Terry termite how to build a tower that won't wiggle and wobble. With some engineering tips from a termite, Sally and Nick can build their block tower higher than before!

Educational Objectives: By mixing sand with a special glue in their spit, African termites build high towers, which are quite stable because the base is wider than the upper parts of the tower.

Day 1

Video Co-viewing

(25 minutes/Whole Class)

Materials:

Interactive Whiteboard (IWB)
Cat in the Hat: Termite Towers video

	Start video.
“ Hey, math detectives, I think I’m seeing some math here, 1 what do you think? “ Do you see a square? How about a triangle? What other shapes do you see? “ What about the tower that Cat is building – do you think that it will stay up? Let’s count how many children think it will stay up? And how many think it will fall down? OK, let’s find out!	Resume video.
“ This is an interesting picture – look at all the holes in this cave. 2 How many do you think there are? Let’s count together.	Point to each hole in the cave and count out loud.
“ Did you notice that some of these holes look like circles, and some look like half circles? Do you know what a half circle is called? It’s called a semi-circle. “Semi” can mean part or half, so semi-circle means part of a circle, or half a circle. Let’s practice saying the word: Semi-circle.	Practice saying the word ‘semi-circle’ with the children.
“ Do you think there are more circles, or more semi-circles in this picture? Let’s count how many children think there are more circles? How about more semi-circles? “ OK, let’s see what happens next – see if you can spot any other shapes while we watch.	Resume video.
“ OK, does anyone see a shape? 3 “ What kind of shape is this?	Point to the hole left by Raymond.
“ This is a triangle. Does anyone know how many sides a triangle has? Let’s count: 1, 2, 3. Can you trace a triangle on the rug in front of you? Let’s count as you draw each side.	Model tracing each side of a triangle in the air and count out loud.
“ Good job; let’s count the sides of a triangle one more time: 1, 2, 3. You’ve been good math detectives during this video. Let’s see how it ends.”	Resume video.

Day 1

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.
" Now we're going to play a game called Pattern Concentration. 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 around 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 go 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.

Day 1

“ 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 complete number line to help children decide which number is missing.

Computer Center Activities

(10 minutes/3 times a week/ Pairs of children)

Materials:

Laptops
Headphones
Sketch-a-Mite game
Bug Catcher game
Trapezoid sign
Pentagon sign

Review Games:

Bubble Pop
Blast Off
Vegetable Patterns
Flower Garden
Huff-Puff-a-Tron
Ribbit
Crystals Rule
Vegetable Harvest

Sketch-a-Mite

“ Remember to take turns as you play the game with your partner. Also, remember to say, out loud, the names of the shapes you create. You can create a move for each type of shape you create. For example, circles could be a clap; for triangles, you could stand up. As you play the game, I will be walking around to see if you need help.

During computer center time, as the children play the game, remind them to name the shape they use in the game, especially trapezoids and pentagons.

Day 1

Bug Catcher

> Remember to count out loud, take turns playing the game, and help each other count.

Be sure to check children's guessing during the first rounds of play to make sure they are trying to count each group of bugs.

During computer center time, as the children play the game remind them to:

1. Call out guesses of which set has more
2. Take turns catching the bugs
3. Confirm or correct the initial guess after collecting all of the bugs

Day 2

Guided Challenge Game Play

(25 minutes/ Whole Class)

Materials:

Interactive Whiteboard (IWB)
Sketch-A-Mite game
Square sign
Rectangle sign
Trapezoid sign
Pentagon sign

Sketch-a-Mite

Face off against the world's best builders - termites! Draw or select shapes to build a tower faster and taller than the termites build.

- Today we are going to play a new math game. Similar to the last time, I will show you how to play the game on the interactive whiteboard. Later, you will have the chance to play this same game with a partner, on the computer.
- Today's new math game is called "Sketch-a-Mite." 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 computer center time. Some of you will have a chance to try out the game now with a partner on the interactive whiteboard.
- The first thing we want to make sure that we do is click on Termite Tower Challenge. Can you name the shapes that are used in the towers? Can you find a trapezoid or a pentagon?

As you demonstrate the game on the IWB, be careful to:

1. Use example signs to review squares, rectangles, trapezoids, and pentagons.
2. Contrast squares and rectangles, noting rectangles have two longer sides.
3. Ask the children to do a particular gesture (like stand up) every time you create a trapezoid, then a different one (like hop on one foot) every time you create a pentagon.

- When you play on the computer, 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 create. Also you can create a move for each type of shape you create. For example, circles could be a clap, triangles a stand up. 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.

Day 2

Computer Center Activities

(10 minutes/3 times a week/ Pairs of children)

Materials:

Laptops
Headphones
Sketch-a-Mite game
Bug Catcher game
Trapezoid sign
Pentagon sign

Review Games:

Bubble Pop
Blast Off
Vegetable Patterns
Flower Garden
Huff-Puff-a-Tron
Ribbit
Crystals Rule
Vegetable Harvest

Sketch-a-Mite

Repeat Week 6 Day 1 computer center activity.

Bug Catcher

Repeat Week 6 Day 1 computer center activity.

Day 3

Math Detective Journal with Easy Game Play

(15 minutes/ Small Group)

Materials:

Interactive Whiteboard (IWB)
Bug Catcher game
Math detective journals
Pattern blocks
Crayons

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.

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

1. Using pattern blocks, 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.

Easy Game Play - Bug Catcher

When catching bugs, the important thing is to get the most! Help George figure out which group of bugs is bigger, and then catch them.

" Today we are going to play a new math game. Similar to the last time, I will show you how to play the game on the interactive whiteboard. Later, you will have the chance to play this same game with a partner, on the computer.

" Today's new math game is called "Bug Catcher." It is a game about 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 computer center time.

" In this game you help George count how many bugs there are. First you must decide if there are more yellow or blue bugs, and then you can take turns trying to catch the bugs after you decide. It is important to remember to say the numbers out loud.

As you demonstrate the game on the IWB, make sure to:

1. Check the children's guesses during the first round of play to make sure they are trying to count each group of bugs.
2. Model playing, counting aloud and reading numbers aloud as you play.
3. Model recovering from clicking on the wrong number.

Day 3

“ When you play on the computer, you'll be working with a partner. Remember to count out loud, 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

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.

Day 3

Computer Center Activities

(10 minutes/3 times a week/ Pairs of children)

Materials:

Laptops
Headphones
Sketch-a-Mite game
Bug Catcher game
Trapezoid sign
Pentagon sign

Review Games:

Bubble Pop
Blast Off
Vegetable Patterns
Flower Garden
Huff-Puff-a-Tron
Ribbit
Crystals Rule
Vegetable Harvest

Sketch-a-Mite

Repeat Week 6 Day 1 computer center activity

Bug Catcher

Repeat Week 6 Day 1 computer center activity

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 IWB

(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?
- “ 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?
- “ Now who thinks they can find a number that is LESS than the number 9? 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 less than 9?

Because it is closer to the zero; because it is farther from the ten; because it is smaller than 9; because it is earlier 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 card or piece of paper over the number 5.

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 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?
- 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 ten; 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 do 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

Eyes and ears and mouth and nose

Head, shoulders, knees and toes, knees and toes

(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 to come up and roll 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.

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. 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 from 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 the tally 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 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.	Then point to the numbers on the number line, explaining which number is closer to zero and therefore less and which is closer to ten and therefore more.

Book Reading (“Ten, Nine, Eight”)

“ 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.

Day 4

“ 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:

“ Let’s see how many windowpanes there are on this page. These are window panes. 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?

Point to the windowpanes when describing them and counting them.

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 marks on a paper. Good thinking about this problem.

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 4

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.

Computer Center Activities

(10 minutes/3 times a week/ Pairs of children)

Materials:

Laptops
Headphones
Sketch-a-Mite game
Bug Catcher game
Trapezoid sign
Pentagon sign

Review Games:

Bubble Pop
Blast Off
Vegetable Patterns
Flower Garden
Huff-Puff-a-Tron
Ribbit
Crystals Rule
Vegetable Harvest

Sketch-a-Mite

Repeat Week 6 Day 1 computer center activity

Bug Catcher

Repeat Week 6 Day 1 computer center activity

Week 7 Brown Week

Full Implementation Week

Objectives

Counting	• Children will learn to count 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 pattern • Children will be able to create patterns using shapes

Episode Synopsis:

Zeros to Donuts (Curious George)

When George learns about the meaning and power of zero, he is ready to test out his knowledge. The perfect opportunity arises when he's sent to the donut shop for one dozen donuts. But when he adds a couple of zeros, he's surprised to find out he gets one hundred dozen. Now he has to figure out what to do with all those extra donuts before The Man with the Yellow Hat notices.

Educational Objectives: To introduce the importance of zero and the relative magnitude of numbers with a zero.

Day 1

Video Co-viewing

(25 minutes/ Whole Class)

Materials:

Interactive Whiteboard (IWB)
Zeros to Donuts video
Small teacher 0 -10 number line

	Start video.
1 “ OK Math Detectives, does anyone see any math here? I see something that is a number and also a shape, can you tell me what it is? What shape is this? What is the mathematical name for this shape. What number has this shape?	Point to circle/zero on screen.
“ Let’s look at our number line. Here is a 0. Let’s count from 0 up to 9. What comes after 9? “ Did you know that the number 10 is made up of a “1” and a “0”—together they make the number 10. “ Do you think that George knows that? Let’s find out!	Resume video.
2 Can you try writing a 0 in the sky?	Practice sky writing 0 with children.
“ Great zeros! Who knows some ways to say how much zero is worth? How much do you have if you have “zero” donuts? “ Some ways to say how much zero is worth is to say “nothing” or “none.” Let’s try to find 0 on our number line—here it is, before the number 1.	Point to the 0 on the number line.
“ Let’s see what George is learning about zeros.	Resume video.
3 So what did George learn about zeros? What happens when you have a 1 and you place a 0 behind it? Does anyone know what that number is? Yes, the new number is 10.	Point to the 10 on the number line.
“ Let’s count together from 0 all the way to 10: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10. Good counting. Now let’s see what George does with zeros.	Resume video.
4 100 donuts, do you think that is a lot or just a few donuts? How many donuts are in the box here?	Count each donut on the screen with children.

Day 1

“ Wow, 12 donuts, that looks like a lot of donuts to me. Do you think this is more than 100 donuts or less than 100 donuts?	
“ Let's find out what happens next!	Resume video.

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 card with the same number of dots? Today we're going to do something a little different.	Show a card and see if the children recognize the number. Show a card, making sure all children can see it. Give children a chance to respond. Then count the number of dots to confirm or refute their ideas.
“ First we are going to look at a card and see if we recognize the number of dots on it.	
“ 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.	

Day 1

Computer Center Activities

(10 minutes/3 times a week/ Pairs of children)

Materials:

Laptops
Headphones
Fair Shares game
Meatball Launcher

Review Games:

Sketch-a-Mite
Bug Catcher
Bubble Pop
Blast Off
Vegetable Patterns
Flower Garden
Huff-Puff-a-Tron
Ribbit
Crystals Rule
Vegetable Harvest

Fair Shares

“ Remember you and your partner should count out loud as you give each dog the biscuits, 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.

During computer center time, as the children play the game remind them to:

1. Subitize (eyeball) the number of biscuits and then confirm their guess by counting
2. Count the biscuits aloud with their partner (1, 1, 2, 2,…) as they are distributed

Meatball Launcher

“ Remember, you and your partner should count out loud, 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.

During computer center time, as the children play the game, remind them to:

1. Take turns firing meatballs, counting up as they fire.
2. Name the total number of meatballs when they're finished firing.

Day 2

Guided Challenge Game Play

(25 minutes/ Whole Class)

Materials:

Interactive Whiteboard (IWB)
Fair Shares game

Fair Shares

When sharing, the key word is "fair." George is handing out biscuits to dogs. Can you help him give each dog the same amount?

- " Today we are going to play a new math game. Similar to the last time, I will show you how to play the game on the interactive whiteboard. Later, you will have the chance to play this same game with a partner, on the computer.
- " Today's new math game is called "Fair Shares." It is a game about 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 computer center time. Some of you will have a chance to try out the game now with a partner on the interactive whiteboard.
- " As we look at the game, try to count how many biscuits there are, and then see if you can make sure each dog has the same amount. Count out loud together and we will take turns giving the dogs their biscuits.

As you demonstrate the game on the IWB, be careful to:

1. Model playing the game, thinking aloud as you use the strategy of giving each dog one biscuit at a time.
2. Ask children to name (by subitizing) the number of biscuits to distribute, and then count them aloud.
3. Count the biscuits (1, 1, 2, 2, 3, 3 ...) aloud as they get distributed to each dog.

- " When you play on the computer, you'll be working with a partner. Remember to count out loud as you give each dog the biscuits, 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.

Day 2

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.

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

Repeat Week 7 Day 1 hands-on center activity.

Day 3

Computer Center Activities

(10 minutes/3 times a week/ Pairs of children)

Materials:

Laptops
Headphones
Fair Shares game
Meatball Launcher game

Review Games:

Sketch-a-Mite
Bug Catcher
Bubble Pop
Blast Off
Vegetable Patterns
Flower Garden
Huff-Puff-a-Tron
Ribbit
Crystals Rule
Vegetable Harvest

Fair Shares

Repeat Week 7 Day 1 computer center activity

Meatball Launcher

Repeat Week 7 Day 1 computer center activity

Day 3

Math Detective Journal with Easy Game Play

(15 minutes/ Small Group)

Materials:

Interactive Whiteboard (IWB)
Meatball Launcher game
Math Detective journals
Complex Shape stickers
AB pattern signs
ABB pattern signs
AABB pattern signs

Math Detective Journal

“ Math Detectives—Today we are going to create our own patterns using different shape stickers.

Show an example of a sheet of 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?

“ Who knows what’s next in (child’s name)’s pattern? Great work!

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/his journal. Ask the child to “read” the pattern or “read” it for her/him. Remind or elicit from children information you want them to know about patterns, including:

1. There are different kinds of patterns
2. We can make patterns from all kinds of “stuff”
3. We can make color patterns, and number patterns and shape patterns and sound patterns
4. Patterns repeat and are predictable meaning we can tell what the next element of the pattern will be based on what we read

“ Now we’ll make some more patterns using shapes.

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

Explain to the children that now they get to make their own pattern in their Math Detective journals.

1. Ask them to turn to the next empty page in their journal.
2. Quickly review the names of the shapes on the sticker sheets .

Explain that they will create their own patterns in their detective notebook using a combination of shape stickers.

1. Have them make a simple AB pattern first and if there is time they can make examples of the other pattern types (AABB, ABB).
2. As you review what children are making, have them “read” their patterns by naming the shapes that are included.

Day 3

Easy Game Play - Meatball Launcher

George is at work in Chef Pisghetti's restaurant, and is using the new meatball launcher! Help him get the right number of meatballs onto each plate.

- "Today we are going to play a new math game. Similar to the last time, I will show you how to play the game on the interactive whiteboard. Later, you will have the chance to play this same game with a partner, on the computer.
- "Today's new math game is called "Meatball Launcher." 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 computer center time.
- "The game is played by taking turns firing meatballs and counting as each meatball lands. Can you tell how many meatballs are on each plate? Can you say the number out loud?

As you demonstrate the game on the IWB, be careful to:

1. Model playing, counting aloud as you play
2. Model confirming the total number of meatballs at the end of the round
3. Model recovering from clicking on the wrong number by re-reading the number and launching meatballs again

- "When you play on the computer, you'll be working with a partner. Remember to count out loud, take turns playing the game, and help each other count and 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 7 Day 1 hands-on center activity.

Day 3

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

Repeat Week 7 Day 1 hands-on center activity.

Computer Center Activities

(10 minutes/3 times a week/ Pairs of children)

Materials:

Laptops
Headphones
Fair Shares game
Meatball Launcher game

Review Games:

Sketch-a-Mite
Bug Catcher
Bubble Pop
Blast Off
Vegetable Patterns
Flower Garden
Huff-Puff-a-Tron
Ribbit
Crystals Rule
Vegetable Harvest

Fair Shares

Repeat Week 7 Day 1 computer center activity

Meatball Launcher

Repeat Week 7 Day 1 computer center activity

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 using the IWB

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? “ 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 that 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 ten; 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 small card or piece of paper over the number 9.

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 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 ten; 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 them first. You will repeat them 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 to come up and roll 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.

Day 4

“ 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.
“ Now let’s look at the tally 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 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.	Then point to the numbers on the number line, explaining which number is closer to zero and therefore less and which is closer to the ten 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? “ Let’s find out 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.
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.”	Point to the number 0 on the number line.
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?	

Day 4

Pause at the end of the book:

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

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

Point to the 1 when you say “one” and point to the 0 when you say “two.”

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.

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

Repeat Week 7 Day 1 hands-on center activity.

Day 4

Computer Center Activities

(10 minutes/3 times a week/ Pairs of children)

Materials:

Laptops
Headphones
Fair Shares game
Meatball Launcher game

Review Games:

Sketch-a-Mite
Bug Catcher
Bubble Pop
Blast Off
Vegetable Patterns
Flower Garden
Huff-Puff-a-Tron
Ribbit
Crystals Rule
Vegetable Harvest

Fair Shares

Repeat Week 7 Day 1 computer center activity

Meatball Launcher

Repeat Week 7 Day 1 computer center activity

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 pattern

Episode Synopsis:

Train Master (Curious George)

George and The Man with the Yellow Hat offer to pick up Bill when his train comes in, and when he gets there, Flint Quint, the station master, shows George how he keeps the trains running smoothly and arriving on time. While Flint is eating lunch, George decides he wants to try his hand at being station master, and while everything starts off smoothly, pretty soon trains are off schedule, out of order, and very confused. Mr. Quint comes to the rescue, and they put the trains back in the correct number order before they reach the station.

Educational Objectives: To help develop an understanding of the relative position and sequence of whole numbers.

Day 1

Video Co-viewing

(25 minutes/ Whole Class)

Materials:

Interactive Whiteboard (IWB)
Curious George: Train Master video
Small teacher 010 number line
Triangle sign
Square sign
Rectangle sign

1

“ OK; get ready to be math detectives again! Did you hear anything that has something to do with math just now? Did you hear any numbers? I heard something about a train schedule.

Start video.

“ Does anyone know what a schedule is? In this picture there is a train schedule and it has the numbers of the trains, and the times they arrive at the station – this is a schedule. It lets you know when the trains will arrive in the station.

Point to the schedule as you describe it.

“ Let’s read the train numbers together, can you read with me? 5, 6, 7, 8, 9. Great! Now let’s see. The boy said his train is the number 7, and it arrives at 3:00 pm. Here it is in the schedule. Can you read these numbers with me? Train number 7, arriving at 3:00 pm. Good reading!

“ Let’s see if that really happens!

Resume video

2

“ Hey, math detectives, does anyone see any shapes here? What are they called? Have you seen a sandwich?

“ How many sides does this have? 1, 2, 3. That’s right. A shape with three straight sides is a triangle. How many sides does this one have? 1, 2, 3, 4. That’s right, 4 straight sides. That is a rectangle. Can you think of another shape that has 4 straight sides? A square also has 4 straight sides. But to be a square all the sides have to be the same size. Are all the sides of the sandwich the same size?

First point to the triangle with 3 sides. Then point to the rectangle with 4 sides. Then look for a square shape in the room and point it out to the children and count its 4 sides.

“ No, there are two that are longer and two that are shorter – this means that the sandwich is a rectangle. Good job being math detectives! Now let’s see what happens next.

Resume video.

Day 1

“ Wow, these numbers are out of order. Can we help George 3 to put them in the right order? Do you know how we can find out the right order – we can look at our number line!	
“ Here is a number line, the numbers start at 0, and go all the way up to 10. Let's start counting: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 – good job. Now, what is the first train number that George is looking at: Nine, and then next seven, and then next eight. Are these in the right order? Let's check the number line.	Point to the 9, 7, and 8 on the screen. Then use the number line to show the order 9, 8, 7 counting out loud.
“ Are these in the right order? Does one come right after the 4 other? Which number needs to come first, the 9, the 7 or the 8? Which number should come next 9 or 8? Which is supposed to be right after number 7?	Use the number line to guide student responses.
“ Good, the 8 comes after the 7. And now what will come next, does the 9 come after 8? Let's check the number line: 7, 8, 9. Yes! So let's count again starting at the beginning, 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10. Great counting. Let's see if George knows how to do this.	Resume video.
“ Wow, that was a lot of work. Did George get the train numbers in order? Let's count: 9, 8, 7, 6, 5. Are these in order? Let's check our number line. Are these numbers in order? What do you think?	Start with number 9 and count down to 5 using the number line.
“ Yes, they are in order. We could also say they are in reverse order. They start at a big number – 9, and end at a smaller number – 5. Let's count our whole number line in reverse order starting at 10 – come on, count with me. 10, 9, 8, 7, 6, 5, 4, 3, 2, 1, 0. Good counting, now let's count starting from 0: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10. You're all getting to be very good counters. Now let's see how this story ends.	Resume video.

Day 1

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.

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 imaginations 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.

Day 1

Computer Center Activities

(10 minutes/3 times a week/ Pairs of children)

Materials:

Laptops
Headphones
Apple Picking game
Count with Allie game

Review Games:

Fair Shares
Meatball Launcher
Sketch-a-Mite
Bug Catcher
Bubble Pop
Blast Off
Vegetable Patterns
Flower Garden
Huff-Puff-a-Tron
Ribbit
Crystals Rule
Vegetable Harvest

Apple Picking

" Remember you and your partner should count out loud, pay attention to the number line at the bottom of the screen, and help each other count. As you play the game, I will be walking around to see if you need help.

During computer center time, as the children play the game remind them to:

1. Read the numbers they see on the floating apples
2. Count up to the missing numbers with their partners
3. Take turns poining to the correct number on the number line on the screen

Count with Allie

" As you play the game, remember you and your partner should count out loud and take turns counting up the number line to find out how many objects altogether. 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.

During computer center time, as the children play the game remind them to:

1. Take turns counting objects on each 2-page spread of the game
2. Confirm the number of objects altogether using the number line in the game

Day 2

Guided Challenge Game Play

(25 minutes/ Whole Class)

Materials:

Interactive Whiteboard (IWB)
Apple Picking game
Small teacher 0 -20 number line

Apple Picking

Numbered apples are floating in the water on their way to the cider press. Help George and Jumpy grab the right ones to fill the gaps in the apple number line.

- “ Today we are going to play a new math game. Similar to the last time, I will show you how to play the game on the interactive whiteboard. Later, you will have the chance to play this same game with a partner, on the computer.
- “ Today's new math game is called “Apple Picking.” 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 computer center time. Some of you will have a chance to try out the game now with a partner on the interactive whiteboard.
- “ As we play the game, read the apples on the number line and try to figure out which number is missing. When you think you know what number is missing, see if you can find it floating around on the screen. Make sure to say the numbers out loud.

As you demonstrate the game on the IWB, be careful to:

1. Model playing the game, thinking aloud as you go
2. Refer to the number line and model using it by counting up to the missing number

- “ When you play on the computer, you'll be working with a partner. Remember to count out loud, pay attention to the number line at the bottom of the screen, and help each other count. 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.

Day 3

Computer Center Activities

(10 minutes/3 times a week/ Pairs of children)

Materials:

Laptops
Headphones
Apple Picking game
Count with Allie game

Review Games:

Sketch-a-Mite
Fair Shares
Meatball Launcher
Sketch-a-Mite
Bug Catcher
Bubble Pop
Blast Off
Vegetable Patterns
Flower Garden
Huff-Puff-a-Tron
Ribbit
Crystals Rule
Vegetable Harvest

Apple Picking

Repeat Week 8 Day 1 computer center activity

Count with Allie

Repeat Week 8 Day 1 computer center activity

Day 3

Math Detective Journal with Easy Game Play

(15 minutes/ Small Group)

Materials:

Interactive Whiteboard
Count with Allie game
Math detective journals
Teacher journal pages 8.1 – 8.4
Small teacher 0-20 number line
Dry erase board
Dry erase markers
Crayons

Math Detective Journal

“ Today we are going to be 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?

Allow students a moment to respond. Be sure to point out:

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

Day 3

“ Let’s begin by counting backwards from 20.

Demonstrating the task: As you demonstrate the task using the materials supplied, make sure to:

Let children know that they will be counting out loud as you point to each number on the number line. Explain that it is important for them to look at the numbers as they count.

Have children count out loud backward from 20.

1. Have children count backward from 10 to 0; then count forward from 0 to 10.
2. Have children count backwards from 10 to 5; then count forward from 0 to 5.
3. Ask children to tell you which number is bigger 10 or 5?
4. Ask them how do they know? If they need help be sure to tell them about the location of the largest numbers on the number line (as you go up from 0 the numbers are getting bigger) and the location of the smallest numbers on the number line (as you count backward the numbers are getting smaller).
5. Ask again which number is bigger, 10 or 5?
6. Have them sky write number 5 then have them sky write number 10.
7. On the number line call children up to locate 5, then 10, then 0, then 20.

“ Now we will work with more numbers in our Math Detective Journals.

Have them turn to the next empty page in their Math Journals.

1. Tell them that they will be Math Detectives for numbers 5 and 10.
2. Have a child point to number 5, then number 10 on the number line.
3. On the first empty page have each child write the number 5.
4. On the next empty page have each child write the number 10.
5. 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.
6. 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.

Using teacher journal pages 8.3 and 8.4, 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.,

Day 3

Easy Game Play - Count with Allie

Join the fun as George and his friend, Allie, read this interactive counting book together.

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

“ Today's new math game is called “Count with Allie.” 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 computer center time. You will be taking turns clicking on the numbers to turn the page, and counting out loud with Allie. Remember to point to the things you are counting.

As you demonstrate the game on the IWB, be careful to:

1. Model playing, counting aloud as you play
2. Model confirming the total number of objects on the page by counting up the number line and stating, “There are X objects altogether.”

“ When you play on the computer, you'll be working with a partner. As you play the game, remember to count out loud and take turns counting up the number line to find out how many objects there are altogether. 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.

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 3

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.

Computer Center Activities

(10 minutes/3 times a week/ Pairs of children)

Materials:

Laptops
Headphones
Apple Picking game
Count with Allie game

Review Games:

Fair Shares
Meatball Launcher
Sketch-a-Mite
Bug Catcher
Bubble Pop
Blast Off
Vegetable Patterns
Flower Garden
Huff-Puff-a-Tron
Ribbit
Crystals Rule
Vegetable Harvest

Apple Picking

Repeat Week 8 Day 1 computer center activity

Count with Allie

Repeat Week 8 Day 1 computer center activity

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

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? “ Now who thinks they can find a number that is LESS than the number 5? 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 less than 5?	*Because it is closer to the zero; because it us further from the ten; because it is smaller than 5; because it is not as far 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 small card or piece of paper over the number 10.

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 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?

“ 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 and Toes” together, except this time, we're going to add an extra part at the end!

Sing the song together, with teacher adding “Ankles, Elbows, Seat, and Feet” verse and children repeating.

“ 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
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,
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 to come up and roll 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.
“ Now let’s look at the tally 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 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.	Then 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 (“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? “ Let’s find out what this book 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.
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.

Day 4

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.

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.

Day 4

Computer Center Activities

(10 minutes/3 times a week/ Pairs of children)

Materials:

Laptops
Headphones
Apple Picking game
Count with Allie game

Review Games:

Fair Shares
Meatball Launcher
Sketch-a-Mite
Bug Catcher
Bubble Pop
Blast Off
Vegetable Patterns
Flower Garden
Huff-Puff-a-Tron
Ribbit
Crystals Rule
Vegetable Harvest

Apple Picking

Repeat Week 8 Day 1 computer center activity

Count with Allie

Repeat Week 8 Day 1 computer center activity

Week 9 Grey Week

Full Implementation Week

Objectives

Counting	• Children will learn to count forward and backward to 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 recognize shapes regardless of their 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

Episode Synopsis:

Bunny Hunt (Curious George)

In the country, George falls in love with neighbor Bill's new pet bunnies. They are so irresistible that when Bill leaves to do his paper route, George just has to pet one. But as soon as he opens the bunny hutch, they all escape. By following their footprints and counting carefully, George restores order and returns the missing bunnies to their home.

Educational Objectives: To encourage problem solving; to demonstrate counting; to show how different animals make different tracks.

Day 1

Video Co-viewing

(25 minutes/ Whole Class)

Materials:

Interactive Whiteboard (IWB)
Curious George: Bunny Hunt game
Small teacher 0 -10 number line
Dry erase board
Dry erase markers

1 “ Hey Math Detectives – Where are you? Do you see anything that could help with math learning here?	Start video. Give children a chance to notice shapes – circles, triangles, squares, rectangles.
“ Great job! Now, can you find any of these shapes in our own classroom? Let’s count how many shapes we can see from our seats. “ Good noticing, and good counting. Let’s see if there are other things to count in this story.	Resume video.
2 “ Uh oh, do you think George is supposed to open the bunny cage? How many bunnies are in that cage? Let’s count: 1, 2, 3, 4, 5, 6, 7, 8. I wonder what will happen next?	Point while counting and have all children count along. Resume video.
3 “ OK, can we help George count how many bunny bowls are here? Let’s count together: 1, 2, 3, 4, 5, 6, 7. Seven bowls! Let’s see if George counts that many too.	Resume video.
4 “ Well, Math Detectives, I just heard more math. Did you hear this: “One down, six to go?” What does that mean? “ If George started with 7 missing bunnies and he found one of them, how many are still missing? Did you know this is a math problem? 7 lost bunnies, take away one found bunny, equals 6 lost bunnies!	Draw 7 circles on the dry erase board, representing the lost bunnies, and then cross one out because it has been found. Then count how many circles are left.
“ Great job, doing a math problem. Now let’s see if George can find the other 6 bunnies!	Resume video.

Day 1

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.
" We're going to play our Pattern Concentration game again. 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 whether 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 0–20 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.

Day 1

“ 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 children decide which number is missing.

Computer Center Activities

(10 minutes/3 times a week/ Pairs of children)

Materials:

Laptops
Headphones
Buddy's Gem Hunt game
Bunny Ride game

Review Games:

Apple Picking
Count with Allie
Fair Shares
Meatball Launcher
Sketch-a-Mite
Bug Catcher
Bubble Pop
Blast Off
Vegetable Patterns
Flower Garden
Huff-Puff-a-Tron
Ribbit
Crystals Rule
Vegetable Harvest

Buddy's Gem Hunt

“ Remember, you and your partner should say out loud the names of the shapes and help each other as you play. As you play the game, I will be walking around to see if you need help.

During computer center time, as the children play the game remind them to:

1. Call it out the shape they're looking for in each round.
2. Point to the correct shapes on the computer screen.

Day 1

Bunny Ride

“ Remember, you and your partner should count out loud, take turns playing the game, 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.

During computer center time, as the children play the game remind them to:

1. Take turns driving the truck.
2. Count up for each carrot collected.
3. Confirm the total number of carrots collected by reading the number on the counter.

Day 2

Guided Challenge Game Play

(25 minutes/ Whole Class)

Materials:

Interactive Whiteboard (IWB)
Buddy's Gem Hunt game
Circle sign
Square sign
Triangle sign
Pentagon sign

Buddy's Gem Hunt

Help Buddy find a present for the Conductor. Dive deep into a cave to collect crystals of different sizes, shapes, and colors. Once all of the crystals have been collected, players must sort them before giving them to the Conductor.

- Today we are going to play a new math game. Similar to the last time, I will show you how to play the game on the interactive whiteboard. Later, you will have the chance to play this same game, with a partner, on the computer.
- Today's new math game is called "Buddy's Gem Hunt." 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 computer center time. Some of you will have a chance to try out the game with a partner on the interactive whiteboard.
- Remember to call out the names of the shapes as we play. We can all take turns finding different shapes.

As you demonstrate the game on the IWB, make sure to:

1. Show example signs with squares, triangles, and pentagons, rotating them 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.

- When you play on the computer, you'll be working with a partner. Remember to say, out loud, the names of the shapes and to help each other as you play. 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 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.

Day 3

Computer Center Activities

(10 minutes/3 times a week/ Pairs of children)

Materials:

Laptops
Headphones
Buddy's Gem Hunt game
Bunny Ride game

Review Games:

Apple Picking
Count with Allie
Fair Shares
Meatball Launcher
Sketch-a-Mite
Bug Catcher
Bubble Pop
Blast Off
Vegetable Patterns
Flower Garden
Huff-Puff-a-Tron
Ribbit
Crystals Rule
Vegetable Harvest

Buddy's Gem Hunt

Repeat Week 9 Day 1 computer center activity

Bunny Ride

Repeat Week 9 Day 1 computer center activity

Day 3

Math Detective Journal with Easy Game Play

(15 minutes/ Small Group)

Materials:

Interactive Whiteboard (IWB)
Bunny Ride game
Math Detective Journals
Teacher journal pages 9.1–9.5
Small teacher 0–20 number line
0–20 large number cards
Crayons

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." Later, in our Math Journals, we will be counting and looking at the number line and comparing numbers 2, 4, and 8. Let's get started.

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

Give children as many opportunities as possible to recognize the numbers in the collection of cards. If (when) numbers 2, 4, and 8 are selected and named, put them aside for the second part of this activity.

Once children have identified at least 10 numbers, let them know that they will be working in the math journals and hand out the Math Detective Journals.

Quickly review what they know about the number line:

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

Day 3

“ Let’s first count from 0 to 20.

Have children count out loud from 0 to 20. As they call out each number, help them focus on the numeral on the number line.

1. Have children count from 0 to 8
2. Have children count backward from 8 to 0; then count forward from 0 to 4
3. Have children count backward from 4 to 0; then count forward from 0 to 2
4. Ask children to tell you which number is bigger 2, 4, or 8?
5. Ask them how do they know? If they need help, be sure to tell them about the location of the largest numbers on the number line (as you go up from 0 the numbers are getting bigger) and the location of the smallest numbers on the number line (as you count backward the numbers are getting smaller)
6. Ask again which number is bigger 2, 4, or 8?
7. Have them sky write number 2, then have them sky write number 4, then have them sky write number 8.
8. Call children up to locate 2, then 4, then 8, then 0, then 20 on the number line.

“ Now we can work with our Math Detective Journals.

Using their Math Detective Journals

1. On the first empty page, have each child write the number 2
2. On the first empty page, have each child write the number 4
3. On the next empty page, have each child write the number 8
4. 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.
5. 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.
6. Finally, 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 pages 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. Ask them to talk about how they know which is larger and which is smaller.

Day 3

Easy Game Play - Bunny Ride

When you take a road trip with George and his bunny friends, there's one thing to remember: Rabbits are always hungry. So make sure to collect carrots as you drive along.

- Today we are going to play a new math game. Similar to the last time, I will show you how to play the game on the interactive whiteboard. Later, you will have the chance to play this same game, with a partner, on the computer.
- Today's new math game is called "Bunny Ride." 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 computer center time.
- As we play, help each other count out loud how many carrots have been collected. We will check that we are counting the right amount by reading the number in the red box on the left side of the screen.

As you demonstrate the game on the IWB, be careful to:

1. Model playing, counting aloud as you play, starting at 0 carrots

- When you play on the computer, you'll be working with a partner. Remember to count out loud, take turns playing the game, and helping each other as you play. 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 9 Day 1 hands-on center activity.

Day 3

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.

Computer Center Activities

(10 minutes/3 times a week/ Pairs of children)

Materials:

Laptops
Headphones
Buddy's Gem Hunt game
Bunny Ride game

Review Games:

Apple Picking
Count with Allie
Fair Shares
Meatball Launcher
Sketch-a-Mite
Bug Catcher
Bubble Pop
Blast Off
Vegetable Patterns
Flower Garden
Huff-Puff-a-Tron
Ribbit
Crystals Rule
Vegetable Harvest

Buddy's Gem Hunt

Repeat Week 9 Day 1 computer center activity

Bunny Ride

Repeat Week 9 Day 1 computer center activity

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 using the IWB

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?	
" 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 ten; 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 card or piece of paper over the number 3.

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 ten; 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 them 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 to come up and roll 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 to 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.
“ Now let’s look at the tally 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 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.	Then 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?
- Let's find out what this book is about.

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

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).

Give children a chance to respond.

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.

Computer Center Activities

(10 minutes/3 times a week/ Pairs of children)

Materials:

Laptops
Headphones
Buddy's Gem Hunt game
Bunny Ride game

Review Games:

Apple Picking
Count with Allie
Fair Shares
Meatball Launcher
Sketch-a-Mite
Bug Catcher
Bubble Pop
Blast Off
Vegetable Patterns
Flower Garden
Huff-Puff-a-Tron
Ribbit
Crystals Rule
Vegetable Harvest

Buddy's Gem Hunt

Repeat Week 9 Day 1 computer center activity

Bunny Ride

Repeat Week 9 Day 1 computer center activity

Week 10 Teal Week

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 portion of AB, AABB and ABB patterns

Episode Synopsis:

Train Master (Curious George)

George and The Man with the Yellow Hat offer to pick up Bill when his train comes in, and when he gets there, Flint Quint, the station master, shows George how he keeps the trains running smoothly and arriving on time. While Flint is eating lunch, George decides he wants to try his hand at being station master, and while everything starts off smoothly, pretty soon trains are off schedule, out of order, and very confused. Mr. Quint comes to the rescue, and they put the trains back in the correct number order before they reach the station.

Educational Objectives: To help develop an understanding of the relative position and sequence of whole numbers.

Day 1

Video Co-viewing

(25 minutes/ Whole Class)

Materials:

Interactive Whiteboard (IWB)
Curious George: Train Master video
Small teacher 0 -10 number line
Dry erase board
Dry erase markers

Start video.

1 “ Get ready to be math detectives again! What did you hear that is related to math? Did you see or hear any numbers? What do you hear? What did you see? I heard something about a train schedule.

“ In this picture there is a train schedule and it has the numbers of the trains, and the times they arrive at the station – this is a schedule.

Point to the train schedule as you describe it.

“ Let’s read the train numbers together, can you read with me? 5, 6, 7, 8, 9. Good. Now let’s see, the boy said his train is the number 7, and it arrives at 3:00 pm. Here it is in the schedule, can you read these numbers with me? Train number 7, arriving at 3:00 pm. Good reading.

“ Let’s see if that really happens.

Resume video.

2 “ Hey math detectives, can you name the shapes that you see here? What are they called? Have you seen a sandwich in one of these shapes before?

Draw two shapes, a triangle and a rectangle, on the dry erase board.

“ How many sides does this have? 1, 2, 3 – that’s right a shape with three straight sides is a triangle. How many sides does this one have? 1, 2, 3, 4 – that’s right, 4 straight sides, that is a rectangle. Can you think of another shape that has 4 straight sides? A square also has 4 straight sides, but to be a square all the sides have to be the same size. Are all the sides of the sandwich the same size?

First point to the triangle with 3 sides. Then point to the rectangle with 4 sides. Then look for a square shape in the room and point it out to the children and count its 4 sides.

“ No, there are two that are longer and two that are shorter – this means that the sandwich is a rectangle. Good job being math detectives! Now let’s see what happens next.

Resume video.

Day 1

“ 3 Wow, these numbers are out of order. Can we help George put them in the right order? Do you know how we can find out the right order? We can look at our number line!	
“ Here is a number line, the numbers start at 0, and go all the way up to 10. Let’s start counting: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10—good job. Now, what is the first train number that George is looking at? Nine, and next the seven, and next the eight. Are these in the right order? Let’s check the number line.	Point to the 9, 7, and 8 on the screen. Then use the number line to show the order 9, 8, 7 counting out loud.
“ Are these in the right order? Does one come right after the other? Which number has to come first, the 9, the 7, or the 8? Which number should come next, 9 or 8? Which is supposed to be right after number 7?	Use the number line to guide student responses.
“ Good, the 8 comes after the 7. And now what will come next, does the 9 come after 8? Let’s check the number line: 7, 8, 9. Yes! So let’s count again, starting at the beginning, 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10. Great counting. Let’s see if George knows how to do this.	Resume video.
4 Wow, that was a lot of work. Did George get the train numbers in order? Let’s count: 9, 8, 7, 6, 5. Are these in order? Let’s check our number line. Are these numbers in order? What do you think?	Start with number 9 and cont down to 5 using the number line.
“ Yes, they are in order. We could also say they are in reverse order: They start at a big number—9—and end at a smaller number – 5. Let’s count our whole number line in reverse order, starting at 10—come on, count with me. 10, 9, 8, 7, 6, 5, 4, 3, 2, 1, 0. Good counting. Now let’s count starting from 0: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10. You’re all getting to be very good counters. Now let’s see how this story ends.	Resume video.

Day 1

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 count 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. Give children a chance to respond, then count the number of dots to confirm or refute their ideas.

- “ 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.

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 our fun 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 on to the shape as you describe it and your partner tries to guess what it is. After your partner has had the chance to guess, you can pull out your shape and show everyone.

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.

Day 1

Computer Center Activities

(10 minutes/3 times a week/ Pairs of children)

Materials:

Laptops
Headphones
Vegetable Patterns game
Flower Garden game
AB pattern signs
ABB pattern signs
AABB pattern signs

Review Games:

Buddy's Gem Hunt
Bunny Ride
Apple Picking
Count with Allie
Fair Shares
Meatball Launcher
Sketch-a-Mite
Bug Catcher
Bubble Pop
Blast Off
Vegetable Patterns
Flower Garden
Huff-Puff-a-Tron
Ribbit
Crystals Rule
Vegetable Harvest

Vegetable Patterns

" Remember we played this game before? Be sure 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.

During computer center time, as the children play the game remind them to:

1. Name AB and ABB patterns when they appear
2. Name the vegetables that fill in the missing parts of the patterns

Flower Garden

" Remember we played this game before, too? Be sure to count each flower and say the number out loud, take turns playing the game and help each other as needed. As you play the game, I will be walking around to see if you need help.

During computer center time, as the children play the game, remind them to:

1. Take turns touching flowers on the computer to open them
2. Count up aloud from the previous flower
3. Name how many flowers there are, once they've all been counted (up to 20)
4. Use the mouse to click on the flowers

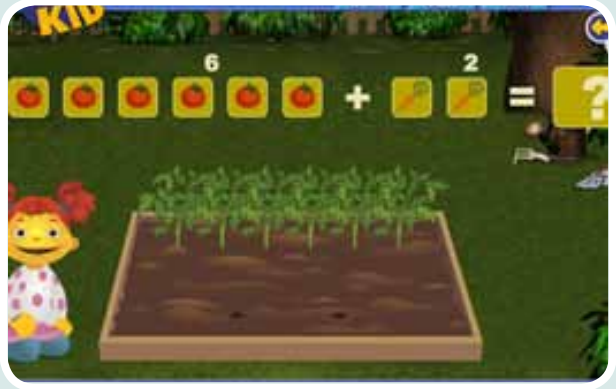
Day 2

Guided Challenge Game Play

(25 minutes/ Whole Class)

Materials:

Interactive Whiteboard (IWB)
Vegetable Patterns game
AB pattern signs
ABB pattern signs
AABB pattern signs



Vegetable Patterns

Gabriela's vegetables are ready to eat, but first, players must complete the pattern of vegetables on the kitchen counter.

" Today we are going to play a math game that we've played before called Vegetable Harvest. The game is about patterns—two different kinds of patterns. One type of pattern has a single item—like a carrot—then a different single item—like an apple. The two items alternate and they repeat, creating a pattern of carrot, apple; carrot, apple; carrot, apple.	Show sign examples of AB patterns.
" The second type of pattern has a single item—like a carrot, then a different item that comes in doubles, so it is: carrot, apple, apple; carrot, apple, apple.	Show sign examples of ABB patterns.
" This time, instead of ME showing you how to play, I want YOU to show me how to play the game. Later, the rest of you will have the chance to play this same game with a partner, on the computer. How many of you remember this game? How many of you have played the game yourself?	Allow children a moment to respond.

Day 2

“ Who knows how to start the game on the interactive whiteboard? I am going to select two children to demonstrate how to play Vegetable Harvest.

Select a volunteer to start up the game on the IWB. Choose a second child to partner with the first. Remind the children about taking turns and saying the patterns out loud.

As the children demonstrate the game on the IWB, make sure to:

1. Point out examples of AB and ABB patterns
2. Help children model their thinking aloud as they play and demonstrate.

“ When you play on the computer, 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, 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.

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.

Day 3

Computer Center Activities

(10 minutes/3 times a week/ Pairs of children)

Materials:

Laptops
Headphones
Vegetable Patterns game
Flower Garden game
AB pattern signs
ABB pattern signs
AABB pattern signs

Review Games:

Apple Picking
Count with Allie
Fair Shares
Meatball Launcher
Sketch-a-Mite
Bug Catcher
Bubble Pop
Blast Off
Vegetable Patterns
Flower Garden
Huff-Puff-a-Tron
Ribbit
Crystals Rule
Vegetable Harvest

Vegetable Patterns

Repeat Week 10 Day 1 computer center activity

Flower Garden

Repeat Week 10 Day 1 computer center activity

Day 3

Math Detective Journal with Easy Game Play

(15 minutes/ Small Group)

Materials:

Interactive Whiteboard (IWB)
Flower Garden game
Math Detective Journals
Teacher journal pages 10.1–10.5
0–20 large number cards
Small teacher 0–20 number line
Crayons

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." Later, in our Math Journals, we will be counting and looking at the number line and comparing numbers 3, 7, and 9. Let's get started.

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

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

Once children have identified at least 10 numbers, let them know that they will be working in the math journals and hand out the Math Detective Journals.

Quickly review what they know about the number line:

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

Day 3

“ Let’s first count from 0 - 20.

Have children count out loud from 0–20. As they call out each number, help them focus on the numeral on the number line.

1. Have children count from 0 to 9
2. Have children count backward from 8 to 0; then count forward from 0 to 7
3. Have children count backward from 4 to 0; then count forward from 0 to 3
4. Ask children to tell you which number is bigger 3, 7 or 9?
5. Ask them how they know? If they need help be sure to tell them about the location of the largest numbers on the number line (as you go up from 0 the numbers are getting bigger) and the location of the smallest numbers on the number line (as you count backwards the numbers are getting smaller)
6. Ask again which number is bigger 3, 7, or 9?
7. Have them sky write number 3 then have them sky write number 7 then have them sky write number 9
8. On the number line call children up to locate 3, then 7, then 9, then 0, then 20

“ Let’s work in our Math Detective Journals now!

Using their Math Detective Journals

1. On the first empty page, have each child write the number 3.
2. On the next empty page, have each child write the number 7.
3. On the next empty page, have each child write the number 9.
4. 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 a die), 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 Teachers Journal, page 10.1.
5. Once they have finished their page of 3, 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 Teachers Journal, page 10.2.
6. Once they have finished their page of 7, 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 Teachers Journal, page 10.3.

Using Teacher Journal page 10.4, children compare a set of 2 to a set of 4 to a set of 8 and identify which is smaller or less. Have them talk about how they know which is larger and which is smaller.

Day 3

Easy Game Play - Flower Garden

Flowers are popping up everywhere! Help George keep track of how many there are by counting with him.

" Today we are going to play a math game that we've played before. Today's math game is called Flower Garden. The game is about counting and numbers. This time, instead of ME showing you how to play the game, I want YOU to show me how to play the game. Later, the rest of you will have the chance to play this same game, with a partner, on the computer. How many of you remember this game? How many of you have played the game yourself?	Allow children a moment to respond.
" Who knows how to start the game on the interactive whiteboard? I am going to select a pair of students to demonstrate how to play Flower Garden.	Select a volunteer to start up the game on the IWB. Choose a second child to partner with the first. Remind the children about turn taking and saying the numbers out loud.
" Can you count each flower and say the numbers out loud?	As the children demonstrate the game on the IWB, be sure to: 1. Help them to model counting aloud while clicking on each closed flower 2. Note the number line at the bottom of the screen, and that numbers highlight with each flower 3. Help them model recovering from errors such as clicking on an open flower (which means it has already been counted) 4. Remind them not to count clicks on already opened flowers, and instead to count on from the previous correct flower 5. Ask how many flowers there are altogether, once all of them have been opened (up to 20)

Day 3

“ When you play on the computer, you'll be working with a partner. Remember to count each flower and say the number out loud, take turns playing the game and help each other as needed. 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.

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.

Day 3

Computer Center Activities

(10 minutes/3 times a week/ Pairs of children)

Materials:

Laptops
Headphones
Vegetable Patterns game
Flower Garden game
AB pattern signs
ABB pattern signs
AABB pattern signs

Review Games:

Apple Picking
Count with Allie
Fair Shares
Meatball Launcher
Sketch-a-Mite
Bug Catcher
Bubble Pop
Blast Off
Vegetable Patterns
Flower Garden
Huff-Puff-a-Tron
Ribbit
Crystals Rule
Vegetable Harvest

Vegetable Patterns

Repeat Week 10 Day 1 computer center activity

Flower Garden

Repeat Week 10 Day 1 computer center activity

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

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? “ 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 card or piece of paper 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?

“ 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 ten; because it is bigger than 1; because it is further along on the number line.

Head, Shoulders, Knees and Toes Song

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

Add verse “Ankles, Elbows, Seat, and Feet” and count them, as well.

“ 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
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,
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 to come up and roll 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 to 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.
“ Now let’s look at the tally 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?	Chose a child to come up and roll 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? " 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.	Point out a pattern on the book cover: small brick, large brick, small brick, large brick.
" Can you find a pattern in the room?	
Pause at pages 12-13 " Can you find the pattern in the flowers?	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?	When looking off the page, continuing from the last firefly on p. 17, 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.

Computer Center Activities

(10 minutes/3 times a week/ Pairs of children)

Materials:

Laptops
Headphones
Vegetable Patterns game
Flower Garden game
AB pattern signs
ABB pattern signs
AABB pattern signs

Review Games:

Apple Picking
Count with Allie
Fair Shares
Meatball Launcher
Sketch-a-Mite
Bug Catcher
Bubble Pop
Blast Off
Vegetable Patterns
Flower Garden
Huff-Puff-a-Tron
Ribbit
Crystals Rule
Vegetable Harvest

Vegetable Patterns

Repeat Week 10 Day 1 computer center activity

Flower Garden

Repeat Week 10 Day 1 computer center activity