

## Kindergarten Number Sense Lesson Plan

### Introduction

- **Topic:** Counting Backward from 10
- **Length of Lesson:** 30-45 minutes
- **VA Standards of Learning:**  
K.4 The student will
  - a) count forward to 100 and backward from 10.

### Cognitive Objectives

Students will:

- Count backward from the number 10 to 0 chorally with his/her classmates while the teacher points to the numbers on a number line.
- Count backward from the number 10 to 0 chorally with his/her classmates while the teacher points to the corresponding objects below the numbers on a number line.
- Count backward from the number 10 to 0 orally by his/herself while self-pointing to the numbers on a number line.
- Count backward from the number 10 to 0 orally by his/herself while self-pointing to the corresponding objects below the numbers on a number line.

### Assessment

#### *Formative*

**Count backward from the number 10 to 0 chorally with his/her classmates while the teacher points to the numbers on a number line.**

- Watch and listen for students to count orally from ten to zero in the *correct order*.
- Watch and listen for students to count from ten to zero in correct order and *in tempo* with their classmates and teacher.

**Count backward from the number 10 to 0 chorally with his/her classmates while the teacher points to the corresponding objects below the numbers on a number line.**

- Watch and listen for students to count orally from ten to zero in the *correct order*.
- Watch and listen for students to count from ten to zero in correct order and *in tempo* with their classmates and teacher.

### ***Summative***

**Count backward from the number 10 to 0 orally by his/herself while self-pointing to the numbers on a number line.**

- Watch and listen to each student count orally from ten to zero in the *correct order*.
- Watch and listen to each student count orally from ten to zero in the correct order and *with fluidity*.
- Students will be evaluated on the rubrics that are attached.

**Count backward from the number 10 to 0 orally by his/herself while self-pointing to the corresponding objects below the numbers on a number line.**

- Watch and listen to each student count orally from ten to zero in *correct order*.
- Watch and listen to each student count orally from ten to zero in the correct order and *with fluidity*.
- Students will be evaluated on the assessments that are attached.

## **Materials/Technology**

- Davis, Rebecca F. (2006). *10,9,8 Polar Animals! A Counting Backward Book*. Capstone Press.
- Large number line (visible to all students from seats)
- Pointing device
- 10 large cutout penguins with tape on the back. (from internet)
- 10 small penguin stickers (or you can use a stamper) for each student
- One piece of journal paper and a set of ten penguin stickers for the teacher
- Summative Assessment Rubric (for counting numerals)
- Summative Assessment Rubric (for counting objects)
- Student Math Journals
- Pencil for each student
- Homework letter to parents
- Wastebasket for “sticker trash”

## **Advanced Preparation**

- Put book in chair on reading carpet.
- Display large number line visible to all students.
- Tape a penguin cutout below each numeral with the top of the penguin’s head touching the bottom of the numeral. (No penguin under zero.)
- Put pointing device next to number line.
- Put piece of journal paper and teacher and student stickers on table up front.
- If you have an assistant, he/she can put the students’ math journals, pencils and sticker sheets inside the math journals on each student’s desk (area) while you are reading the book.
- Draw a large top hat somewhere visible for the students to copy.
- Put homework letter to parents in the students’ homework folders.

## **Teaching and Learning Sequence** \*(ARRG) according to their regular routine/guidelines

### ***Introduction/Anticipatory Set***

- Have the students get their math journals and a pencil out (ARRG), and put them on their desks for later. (If you have an assistant, they can do this while you read.)
- Gather the students on the reading carpet (ARRG).

- Show the cover of the Polar Animals book to the students and ask them to make any observations and predictions about the book based on the cover.
- If none of the students talk about the fact that the numbers “10, 9, 8” are being counted backward, ask the students if they recognize this? Explain to them that that is what you will be talking about today. *“We are going to talk about counting from the number 10 all the way back to the number 0. We will be counting backward! 10, 9, 8, 7, 6, 5, 4, 3, 2, 1, 0...Don’t forget the zero!”*
- Read the story and highlight, with your tone of voice, the numbers that are being said. Allow for students to predict what the number will be on the next page either chorally or by raising hands to answer individually (ARRG).
- Dismiss the students back to their seats (AARG). Tell them not to do anything with their journals and pencils until they are given directions.

### ***Lesson Development***

- Ask the students *“What would you LOOK like if you were a penguin and you were flapping your wings?”* Model this action for the students.
- Tell the students to *“Make the sound on the sides of your legs with you hands as your wings flap down.”* Model this sound and action for the students.
- Point to the number 10 on the number line with the pointer. Tell the students *“Get your flappers ready...every time I point to a number I want to hear a gentle flap of your wings on the sides of your legs...no words yet.”* Point to each number in order from ten to zero (rate- one number for each second or whatever pace is deemed appropriate). Repeat this three to four times.

- *“Now, with your wings still flapping (one for each number), say the number that I point to aloud with your classmates.”* Continue using the pointer to direct them. Repeat this three to four times. The first two times say the numbers with the students. The last one to two times do not say the numbers with the students. Always end with *“Don’t forget the zero!”*
- Repeat the previous bullet two-three times while pointing to the **penguin cutouts** underneath the numerals.
- **Try** having the students close their eyes, still flap their wings and repeat the previous bullet again two to three times. Tell the students *“Try to see a picture of the number line in your head while you do this. Also see the penguin under the number...It is like the penguins are wearing the numbers as their hats! Now lets try to count from ten to zero backward keeping our eyes closed and flapping our wings. Ready...together...out loud!”* If this step is too difficult for the majority of the students, stop and repeat the previous bullet one time.
- Tell the students that when they get have learned to count really well, while pointing and looking at the numbers and objects, then *“We will do a whole lesson practicing with our eyes closed!”*
- Point to each penguin as you count forward from zero to ten aloud to your students. Ask the students, *“Did I just count FORWARD of BACKWARD?”* Allow the students to answer (ARRG). Repeat if necessary.
- Point to each penguin as you count backward from ten to zero aloud to your students. Ask the same question again.
- Have the students open their math journals to the next blank page and take out a pencil.

- Hand out a set of ten penguin stickers (or on penguin stamper) to each student (ARRG) if the assistant has not already done so. Tell the students *“Please wait until you hear and see the directions before you put your stickers on your paper...Please look up here while I show you.”* If time allows, let the students have a minute or two to check out their stickers before you proceed.
- Model for the students (using your journal paper and stickers) putting the stickers on the paper, next to each other, about one fingertip apart, in a straight line. Say the steps and hold up your paper up against the front board as you do them. *“See...my penguins are standing in a nice straight line! Do your best to keep them straight...but they don’t have to be perfect! Try real hard to get them all standing next to each other with a little bit of space between them.”* VERY IMPORTANT TO TURN THE PAPER HORIZONTALLY SO YOU CAN FIT ALL TEN OF YOUR PENGUINS AND HAVE ROOM FOR THE NUMBER 0.
- Give the students time to put their stickers on their paper. Walk around to monitor their placement and progress.
- When they are done, point to the number line again, showing the students that the numbers are like the penguins’ hats. *“When you get home tonight mom, dad, grandma...whoever you would like to help you...will write the numbers above the penguins like a hat. The reason we are going to let THEM write the numbers is that these penguins are pretty small right? Sometimes we have a hard time writing small when we are learning how to form our numbers and letters. We want the numbers to sit right on top of the penguins’ heads so you can practice counting with your helper and by*

*yourself tonight. And don't worry...I put the directions in your homework folder for your helper to read so that they will know what to do!"*

## **Closure**

- Point to the top hat that you drew on the front board. Tell the students to turn to the next blank page in their math journal and draw some top hats on that page. Model drawing another hat on the front board. Explain that it is a square with two lines coming straight out from the bottom of the square. Model drawing this a few times. Give the students three minutes to practice.
- Tell the students to draw a top hat on top of each penguin's head with their pencil. (Use this time to collect "sticker trash" in a wastebasket, while observing and commenting on the students' top hats.) Tell them NOT to color them in. *"Your helper will be trying to put the numbers ON the hats! If they don't have room, they will draw the numbers ABOVE the hats...both ways is fine!"*
- When they are finished (or the majority are finished), tell the students to put their math journals in their backpacks and pencil cases away (ARRG). Tell them that they can finish any top hats they didn't get to at home.
- Tell the students that *"Tomorrow I will be coming around to each person's desk during morning journal time to count backward with you. Just like you will be doing tonight with your helper, you will be using your pointer finger and saying the numbers out loud.*
- When they are all back and seated, *"Let's go one more time!"* Point to each penguin and count with the students while they flap their wings. End with *"Don't forget the zero!"*

## **Homework**

\*The students will count their numerals and penguins in their math journals to their parents/homework helpers, starting with the number 10 going backward to the number 0.

\*The students' parents/homework helpers will write "how they did" in their journal.

\*The homework letter will give the parents/homework helpers directions. (attached)

## **References**

Davis, Rebecca F. (2006). *10,9,8 Polar Animals! A Counting Backward Book*. Capstone Press.

### Lesson Organizer

Instructional Content		
<ul style="list-style-type: none"> <li>• Counting backward by rote lays the foundation for subtraction. Students should count backward from 10, 9, 8,...through...3, 2, 1, 0.</li> <li>• Counting forward and backward leads to counting on and counting back.</li> </ul>		
Instructional Modifications to ASSIST Students	Main Events of Instruction	Instructional Modifications to CHALLENGE Students
<p><b>1.</b> Teacher will point to and repeat each number as it is being said.</p> <p><b>2.</b> Allow the students who are having difficulty keeping in time with other students (while counting aloud) flap their wings without saying the numbers.</p> <p><b>3.</b> During summative assessments, allow the students who have trouble with counting the penguins backward just count by pointing to the numbers.</p> <p><b>3.</b> During summative assessments, teacher can count and point with the student.</p>	<p>1. Read <i>10, 9, 8 Polar Animals!</i> by Rebecca F. Davis to the class.</p> <p>2. Teacher points to numerals and penguins while students flap and say numerals out loud and backward (as a class).</p> <p>3. Teacher sits with each student for assessments. (individually).</p>	<p>1. Have students predict what number is coming next.</p> <p>2. Have students turn and face away from the number line while flapping and counting aloud with the class.</p> <p>3. Cover the numbers with a piece of paper while the student counts the penguins.</p> <p>3. Have the student close his/her eyes as he/she counts the numerals and say “ten penguins, nine penguins...” when it is time to count the penguins.</p>

