## Family Literacy Guided Lesson When Sheep Cannot Sleep

## NY State Learning Standards

## Learning Standard

## 4 for English

 Language ArtsStudents will listen, speak, read, and write for social interaction.

## Learning Standard

3 for Mathematics,
Science, and,

## Technology

Students will
understand mathematics and become mathematically confident by communicating and applying mathematics.

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## About the Book

When Sheep Cannot Sleep: The Counting Book / Cuando los borregos no Pueden dormir- un libro de contan

## Satoshi Kitamura, author and illustrator

In this non-traditional counting book, Woolly the sheep, a charming insomniac, cannot sleep and goes for a nocturnal walk in the meadow. His journey is filled with fascinating things to count from 1 Woolly himself, to 22 Z's. Woolly and readers count everything from butterflies to stars to bubbles to Woolly's 22 sheep relatives before Woolly drifts off to sleep. The items to be counted are listed at the back of the book. Kitamura's deep-toned watercolor illustrations painted in subtle combinations like cinebar, ochre and intense inky-violet add to the charm of the book.

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## The Language/Literacy Connection

## Counting

Counting has its roots in a sensitivity to numbers that is demonstrated by children in their earliest days of infancy. Infants as young as five months are perceptive to numbers (Wynn, K. "Infants Possess a System of Numerical Knowledge." Current Directions in Psychological Science, 4, 1995, 172-76). Before their first birthday, children are able to visually recognize the differences in pictures that show two and three objects and relate those visual differences to the number of drum beats, two or three, that they hear (Starkey, P., E. Spelke, and R. Gelman. "Detection of Intermodal Correspondences by Human Infants." Science, 222, 1983, 179-81). Several abilities, generally acquired in the preschool years, are required to count accurately. They are:

- Reciting the sequence of number names a memory task,
- Linking a single number name with one object and only one object - one-to-one correspondence; and
- Counting each item in a set only once keeping track.

Counting enables children to answer questions such as:

- How many do I have? - number of items in a set,
-Who has more ?- comparisons; and
- If I take one away or add one, will we have the same? - addition and subtraction.


## Math Counts



## Early Childhood Education-Preschool and School <br> Age Levels

## Make a Counting Book

## PLS-4 Skills

## Auditory

Comprehension
40. Understands more and most
51. Understands quantity concepts three and five
54. Orders pictures from largest to smallest

## Expressive

## Communication

59. Counts and gives correct order

## Before the Visit

## Gather Needed Materials

- Construction paper
- Crayons/markers/ pencils
- Glue
- Scissors
- Newspapers/ magazines
- Ruler


## Prepare Lesson

## Props

- Make a sample counting book to use as a model.


## During the Visit

- With the parent and child sitting together, look at the cover of the book. Say: Some people count sheep to help them fall asleep. What do you do when you can't sleep? Encourage parents and children to share what helps them fall asleep. (Read a book, drink warm milk, get a back rub, etc.)
- As you read, identify animals in English/Spanish and count in both languages.


## Make a Counting Book

Say: When Sheep Cannot Sleep: The Counting Book / Cuando los borregos no Pueden domir-un libro de contan is a tool to help children learn to count. We will make a personal counting book.

- Design a cover for the book. Be sure to include a title and author - you!
- Browse through newspapers and magazines to select suitable pictures for a counting book.
- Start by cutting out a
picture of ONE thing.
- Glue the picture onto a blank sheet of paper.
- Write a big number 1 on the page. Provide an English and a Spanish label. For example: for the number 1 write one and uno.
- When you finish with the number 1, start a new page for number two. On this page glue two things that are alike.
- Follow the same procedure until the booklet is completed. Go as high as (child's name)
is able. As (child's name) learns to count more numbers, add to the book.
When the counting book is finished, pick your favorite page and tell a story about it.


## Make a Number Chart

- Say: A chart is a way to organize information. For example, we can organize the information in your counting book by drawing a chart that has three columns and a row for each page in your book. Columns are lines that go up and down. Rows are lines that go across.
- Use a ruler to draw a full-page chart that has three columns and five rows. Label the columns: Number Symbols, Number Names, and Number Representations. Using the information from the child's book, fill in the information for the first row. Then say: What information should we put in the second row?
- Your chart will look something like this:

| Number Symbols | Number Names | Number Representations |
| :---: | :---: | :---: |
|  | .................. | ...................................................... |
| 1. | One / Un | ............................page1 of child's book............ |
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## Parenting Education Activity

## Every Day Mathematics

Meaningful everyday experiences help children become literate in mathematics and grasp how numbers help them achieve many goals. Through daily math encounters, parents guide children to an understanding of the importance of math in their current activities and how math will help them in the future with a job, their family, and everyday life.

## Shopping for Groceries

Say: Shopping for groceries is one of the best realworld examples of mathematics.
Before you go shopping:

- Make a shopping list with your child;
- Together make tally marks next to each item to indicate the number needed;
- Involve the child in predicting things like how much milk or juice is needed for the week; and
- Count the number of family members for which you need to buy.
During your shopping trip:
- Encourage your child to participate in weighing produce on the scale;
- Counting the items to be weighed;
- Count the number of items in the grocery basket; and
- Point out how the number changes.

After you get home:

- Count the number of grocery bags;
- Count the number of objects in each bag;
- As you put the items away, have your child check off the item on your list;
- Group the items that go together, and explain why they are grouped that way, for example, breakfast foods, foods that need refrigeration, canned goods, etc.


## Rhymes That Count

Say: Nursery rhymes and children's songs are enjoyable ways to reinforce counting. What counting rhymes and songs do you know?

## Five Little Ducks

(Traditional)
Five little ducks went swimming one day,
Over the pond and far away.
Mother Duck said, "Quack, quack, quack, quack".
But only four little ducks came swimming back.
Four little ducks went swimming one day, etc.
Last Verse: One little duck went swimming one day
Over the pond and far away.
Mother Duck said, "Quack, quack, quack, quack",
And five little ducks came swimming back.
(Wiggle the fingers of one hand to represent the ducks
swimming.)

## Cuéntame diez

## (Traditional)

Los perros aquí,
Los gatos allá.
Cuéntame diez
Y yo me saldré.
$1,2,3,4,5,6,7,8,9,10$.

## Math Explorers

Say: Together, explore math in the world around you.

- Count the number, size, and kinds of trees.
- Have your child be the assistant score keeper during family games.
- When you travel, have your child find numbers on buildings, buses, and license plates.


## Interactive Literacy Between Parents and Their Children

## Numbers Everywhere!

Math is everywhere! At some time during each day we answer the questions how many or how much. Young children learn about numbers as they match, compare, sort and put things in order by size. Children who have lots of practice counting things have an easier time understanding numbers. You can help your child feel comfortable with numbers by sharing books about counting, by connecting math to everyday activities, and by talking about numbers where they can be used. Remember your child is counting on you to help make sense of the world.

## Family Counts

Count the people in your family and make a family tree. Trace your child's hand with fingers spread. Put the name of each family member on one of the fingers. If you need more "fingers", trace the hand again so it overlaps into needed spaces. Count with your child all the members of your family. Put a small photo of each member by his or her name on the tree. Color your "family tree" and hang it up for all to see!

## Sort, Count and Compare

## Pair of Things

Count things that come in pairs such as mittens, socks, and eyes. How many different pairs can you find? Count things that come as singles such as one head, one mouth, and one smile. Some things come in groups of four such as tires on a car and legs on a dog. How many groups of four can you and your child count?

## Give your child a

handful of each of three kinds of beans - perhaps kidney, lima, and navy and three plastic containers. Have him or her sort the beans by kind into the containers. Count the beans in each container. Compare the numbers. Which is more? Which is most? Make a comparison chart by gluing the beans into columns drawn on a piece of cardboard.

## A Quiet Count

Give each of your children a plastic margarine container and a pile of cotton balls. Challenge them to stuff their containers with cotton balls. Then count the balls in each container. Who was the best stuffer? In a more cooperative quiet count game, use two plastic containers of different sizes. Work together to stuff the containers. Then, before counting, guess how many balls there are in each container.

Card Game

From a deck of cards, use the number cards two through ten to play : a number recognition game. Deal four cards to each player. Place the remaining cards in the center of the playing area. Take turns asking other players for cards to match those in your hand. For : example, a player may ask, do you have a five? If the answer is no, the player then takes a card from the center stack. If a player does not know the name of the number on the card, he/she can show the card to the other players and ask do you have one of these? An older player can respond with let's count the number of hearts on your card: one - two three - four. You need a number four card.

## Adult Literacy - ABE Level

## Music as a Way of Countins

Music is the pleasure the human soul experiences from counting without being aware it is counting (Gottfried Leibniz). Music is often a part of a family's traditions. We sing to our children, at family get-togethers, in the shower, and on road trips. Tapping our feet and clapping to the beat of a familiar rhythm is as natural as eating and sleeping. Most of us have memorized the lyrics and melody of a few favorite songs. While we gather pleasure from these activities we are also building a base for counting.

## Count the Beat

Say: Sing this traditional birthday song. As you sing tap out the beat of the song. How many beats do you hear for each line? Write the number in the spaces after each line.


- Did you hear 6 beats for lines 1,2 and 4 ?
- How many beats did you count for line 3? Was it more than the other lines? Why?

Say: In addition to counting the beats in the melody of this traditional song, the song was teaching you to break words into syllables. Sing the first line again. Tap out the beats. Each time you tap, you divide the words into syllables.
(Hap) (py) / (birth) (day) / (to) / (you)

- Count the beats in each line of this nursery rhyme.

Mary had a little lamb, (__)
Little lamb, little lamb, (__ )
Mary had a little lamb, $\qquad$
Its fleece was white as snow. (___)

- Do all of the lines have the same number of beats?
- Using the method illustrated above, divide the first and last lines of Mary Had a Little Lamb into syllables.
- What is your favorite song? Write the lyrics on a sheet of paper. Count the number of beats in each line of the song. Divide the words into syllables.


## Adult Literacy - GED Level


#### Abstract

: Carl Sandburg was an American poet who lived from 1878 to 1967. In his lifetime he published over 700 poems written in free verse style. In his poem Arithmetic he shares his thoughts, ideas and feelings about arithmetic. The poem gains its vividness from its imagery, word pictures that appeal to the senses and to internal feelings.


## Arithmetic <br> by Carl Sandburg

Arithmetic is where numbers fly like pigeons in an out of your head. Arithmetic tells you how many you lose or win if you know how many you had before you lost or won.
Arithmetic is seven eleven all good children go to heaven-or five six bundle of sticks.
Arithmetic is numbers you squeeze from your head to your hand to your pencil paper till you get the answer.
Arithmetic is where the answer is right and everything is nice and you can look out of the window and see the blue sky-or the answer is wrong and you have to start all over and try again and see how it comes out this time.
If you take a number and double it and double it again and then double it a few more times, the number gets bigger and bigger and goes higher and higher and only arithmetic can tell you what the number is when you decide to quit doubling.
Arithmetic is where you have to multiply - and you carry the multiplication table in your head and hope you won't lose it.
If you have two animal crackers, one good and one bad, and you eat one and a striped zebra with streaks all over him eats the other, how many animal crackers will you have if somebody offers you five six seven and you say No no no and you say Nay nay nay and you say Nix nix nix?

If you ask your mother for one fried egg for breakfast and she gives you two fried eggs and you eat both of them, who is better in arithmetic, you or your mother?

- Notice how many of Sandburg's lines begin with "Arithmetic is...". Using that phrase and the same free verse style that Sandburg used, add to the poem by composing three lines of your own that express the feelings and images that arithmetic evokes for you.

Arithmetic is $\qquad$
Arithmetic is $\qquad$
Arithmetic is $\qquad$

- At the end of his poem Sandburg poses two "word problems" that begin with the words "If you . . .". Write one more word problem that is either whimsical like Sandburg's or more serious.

If $\qquad$
$\qquad$


## Adult Literacy -ELL Level

## Countins

Play cards and practice English words for numbers one through ten.

## Vocabulary

Number names for one through ten.

## Gather

 Needed Materials- Deck of playing cards
- Bag of cotton balls
- Role of pennies
- Box of paper clips
- $3^{\prime \prime} \times 5$ " index cards with the number symbols printed on them.
the learner to repeat the number name.
- Point to the number one. Say: This is the number one. What number is this? One. Ask again: What number is this? Motion for the learner to repeat: One. Repeat for numbers two through five.
- Say: Point to the number one. Motion to the


## Introduce <br> Vocabulary

- Place the index cards for the numbers one, through five on the workspace face-up and in order. Count, pointing to each card as you say the number name. Count a second time. After each number pause and motion to
learner to point to the number one. Repeat for remaining numbers.
- Place five sets of cotton balls on the workspace: one cotton ball, a set of two cotton balls, and a set of three cotton balls, a set of four cotton balls, and a set of five cotton balls. Point to the one cotton ball and say: This is one. What is this? One.

Ask again: What is this? Motion to the learner to repeat: One. Repeat for remaining sets.

- Repeat procedure with sets of pennies and then sets of paper clips. Each time count the number in the set and say the set name.


## Reinforcement

Play card games using only cards with numbers one through five.

- Search: Deal five cards each, face-down, to you and to the learner. Count each card as you deal the learner's hand. Say: One, two, three, four, five. Motion to the learner to count each card as you deal your hand, one, two, three, four, five. Place the remaining cards, face-down, in the center of the work space. Show one card from your hand. Point to the number on the card and say: I need a (4). Point to each spot on the card and count: one, two, three, four. Motion to the learner to look in his/her hand for a number (four) card. If he/she does not have a (four) card, select a card from the center stack. Motion to the learner to request a card, naming the number on the card and counting the spots.
- Confrontation: Deal cards into two equal hands face down. Deal cards five at a time and count as you deal. Motion to the learner to count with you. One, two, three, four, five. One, two, three, four, five. Etc. Turn the top card on your hand face-up and place it on the workspace. Say the card's number and count the spots. For example, say: Three. One, two, three. Motion to the learner to play his/her top card, say its number name and count its spots. The player with the higher number takes both cards and places them at the bottom of his/her hand. If players turn up cards with the same number, each player turns up a second, third, fourth card, etc. until one player has a card with a higher number.


## Extension

Teach number words for six through ten using the procedures outlined above. As the learner learns each new number, add the cards for those numbers to your card games.

