78   Wilburne, Keat, and Napoli

LESSON PLAN: Kindergarten Example

BOOK: Tierney, F. (2010). *Lion's lunch?* New York: Chicken House. (The cover of *Lion's Lunch?,* by Fiona Tierney and illustrated by Margaret Chamberlain, appears courtesy of Chicken House, an imprint of Scholastic Inc. Copyright © 2010. All rights reserved.)

SYNOPSIS: Sarah walks through the jungle and meets the lion, king of the jungle. The lion threatens to eat Sarah because she was walking through the jungle singing. The lion claims that nobody walks or sings in the jungle. They slither, swoop, gallop, squeak, grunt, chatter, and so forth. When Sarah draws a picture of the lion to show him how mean and mad he is, the lion is angry. He vows to change if Sarah draws a picture of him happy and nice.

NUMBERS AND OPERATIONS: Representing, comparing, and ordering whole numbers and joining and separating sets

MATERIALS: Pictures of some of the animals in the book, tape, large hundreds chart, eight crayons (or straws) for each child or pair of children, two different-colored paper plates for each child or pair of children

Sarah sees all kinds of animals in the jungle. Some of the animals might be friendly to people, and some of the animals might not be so friendly to people. Sarah wants us to make a list of some of the animals she sees and separate them into two groups: friendly and not friendly.

The students can identify some of the animals in the book and decide whether they would be friendly or not. The teacher can have pictures of some of the animals to tape onto the lists along with the word name for the animal. In the story, all the animals except the lion are nice to Sarah, but what if Sarah went into a real jungle? The children may have some debates regarding whether certain animals would be friendly or not. "*Let's count how many animals we have in each group.*" The teacher can help the children count the animals listed in each group and write the number of animals for each group as numerals. Students can practice reading the numerals and count on the hundreds chart until they reach the number of animals in each group.

Sarah is amazed at how well you all can count! She wants us to help her figure out how many animals are in both lists. Do you think we can help her find this out? How could we do this? What are some different ways we could total the number of animals in both groups?

Some ways the children could suggest or the teacher could demonstrate are with base 10 blocks, adding with different manipulatives such as Unifix cubes or chips, adding on with the hundreds chart, and so forth.

Sarah likes to draw pictures of animals. She likes to use crayons to draw pictures just like you like to use crayons to draw pictures. She has a box with eight crayons in it. So to represent the eight crayons, I am going to give each pair of children eight crayons.

The teacher can give each pair of children eight crayons. If crayons are not available, the students can use short straws to represent the crayons. Also, the teacher should give each pair of children two different-colored paper plates.

Let's see how many different ways we can separate the crayons into two groups. For example, we could put two crayons on the red plate and six crayons on the blue plate, or we could put one crayon on the red plate and seven crayons on the blue plate. Take a few minutes to work with your partner to see how many different ways you can find.

Excerpted from
Cowboys Count, Monkeys Measure, and Princesses Problem Solve:
Building Early Math Skills Through Storybooks
by Jane M. Wilburne, Ed.D., Jane B. Keat, Ph.D., & Mary P. Napoli, Ph.D.

Kindergarten   79

Encourage the children to talk about the number of different ways they can divide up eight crayons into two groups.

Very good! I think Sarah will really be pleased to see how many different ways you separated your crayons. Suppose Sarah lost three crayons. Can you talk to your partner and see if you can tell Sarah how many crayons she now has?

Have students explore ways to solve $8 - 3 = 5$.

"Now, let's see how many ways we can separate five crayons into two groups. Use your red and blue plate to find out how many ways there are to separate the five crayons. Be sure to talk to your partners." Teachers can continue with different number of crayons.

GEOMETRY: Describing shapes and space

MATERIALS: Paper and crayons, plastic bags with different shapes (e.g., large and small tri-angles, some scalene, right, or obtuse; large and small squares, large and small rectangles) in each for groups of students

"When Sarah draws a picture of the lion being happy, she holds it up so all the animals can see it. What shapes do you see in her drawing?" Children might be able to identify circles and tri-angles. *"How many circles do you see in her drawing?"* You can have children count the face as one large circle, the two ears, and two eyes. (Some children might want to count the eyeballs as circles). *"How many triangles do you see?"* This may be a little harder to count. Show chil-dren how to mark where to start counting, and count the triangles.

So we see Sarah's drawing of a lion that is made of only circles and triangles. I am going to have each of you take a piece of drawing paper and some crayons. I would like you to draw a picture of anything you would like. But your picture should only have circles and triangles in it. Be as creative as you can be, and think about a picture you would like to draw.

After the children draw their pictures, encourage them to talk about their pictures and how many circles and triangles they have drawn in their pictures.

Now the lion wants us to help him. The lion wants Sarah to draw different shapes and tell him stories about the shapes. He wants to learn about the different shapes so he can build some huts in the jungle. The lion wants us to help Sarah draw different shapes and describe the shapes. Sarah made a list of different shapes, and I put the list on the board: circle, square, rec-tangle, triangle, and semicircle. How could Sarah describe these shapes to the lion? Let's take a few minutes to talk about these shapes.

The teacher can lead the discussion to focus on how many sides, the angles, the characteris-tics of the shapes, and so forth. *"Now, each group has a plastic bag with different shapes in-side. Let's work with our partners to separate the shapes into groups. Decide what your groups will be and be sure each shape is in a group."* As the teacher walks around the groups, pose questions to ask students why they put certain shapes in groups or how they are defining their groups. As a summary, the children can tell Sarah what group they put the different shapes into.

MEASUREMENT: Ordering objects by measurable attributes

MATERIALS: Cutouts of various animals in the book

Sarah meets all kinds of animals in the jungle. Let's look at a few of the animals. We can see a crocodile, a leopard, and a friendly squirrel on this page on which Sarah is drawing. I have made some cutouts of these animals, and I would like you to think about the size of the ani-

Wilburne, Keat, and Napoli

mals. Which animal would you say is the shortest of these three? How do you know this animal is shorter than the other two?

Listen to the description of the measurement terms the child is using. "*Which animal is the tallest of the three? How do you know this animal is taller than the other two? Which animal has the longest tail? How do you know this animal's tail is longer than the other two?*" The dialog can continue with students comparing other animals or other attributes of the animals. It would be helpful to select animals with obvious difference in their measurements. The discussion can focus on the heights or lengths of the animals or their tails.

Suppose the lion asked Sarah to help him draw a fence. He wanted the fence to be tall enough to be sure the animals would not be able to jump over it. Sarah wants us to find out how tall she should draw the fence. Let's think about how tall this fence would need to be. What ideas do you have for Sarah?

The discussion can revolve around the heights of the animals, the ratio of their legs to their body (e.g., the ostrich), how high the animals can jump, or how fast the animals could run to leap over the fence.