

## Lesson 7

### RATIONALE

This lesson continues the goal of teaching the children strategies to use when counting so that every object is counted and no object is counted twice. This lesson stresses going in order and marking the starting place as such strategies.

### MAIN ACTIVITY

Do the following to apply the concept of counting.

a. Gather blocks, cups, candies, coins, or other small, countable objects.

b. Review the counting rule: give one but only one number to an object.

c. Ask the children what ways they have learned that helped them follow the rule. Indicate they will learn another way today.

d. Put the objects in a line. Put your finger on each one in turn and have the children count the objects. Ask whether you skipped or missed any. Ask how you kept from counting any object two times. (*You went in order.*)

e. Arrange objects in a circle. Ask the children if they notice any problem with counting the objects in a circle. Have a child count the objects, touching each one as the group counts. Ask how they can remember where the counting started and how they know where it should stop.

f. Use a marker, such as putting a piece of paper by an object, or moving the object out of the circle. Have a child start counting with that object. Ask whether the marker helps them tell where the counting started. Ask how they can tell when to stop counting. Ask whether the marked object should be the first one counted or the last one.

g. Summarize by eliciting from the children the special counting rule and the strategies they have learned to make sure they follow the rule.

### VARIATIONS

Have the children count chairs in a row, in a circle, or around the table. Invent various ways of marking the first item counted.

### COGNITIVE FUNCTIONS

1. USING A SYSTEMATIC APPROACH
2. USING THE COUNTING CONCEPT

### GENERALIZING ACTIVITY

Play a game in which the children sit in a circle. The teacher tells "it" a secret number such as the number 3. "It" is to go around the circle, counting children, touching the child that is number 3. Number 3 then gets up and chases "it" around the circle till "it" takes number 3's place. Number 3 then becomes "it," goes to the teacher, gets a secret number, and starts around the circle until he or she touches the appropriate child and gets chased.

### BRIDGING DISCUSSION

Discuss counting. Who has to count things? Ask the children to consider a cashier at the store; a teacher when taking attendance; a bus driver when taking children home. Discuss how each of these people makes sure that no one is missed and no one is counted more than one time. Discuss other contexts in which these systematic counting strategies may be used such as playing games, taking turns, setting the table, or figuring the days of the week.

### OTHER BRIDGING DISCUSSION

School:

Home:

Peer group:

Other:

### COGNITIVE MASTERY CRITERION

Given five objects arranged in a circle and asked to count them individually, each child should count in order and show that he or she has marked the one with which he or she started.



## Lesson 8

### RATIONALE

This lesson is designed to make the children aware that a number is a quantity, that it answers the question "how many?" A number is also a label for a position in a sequence. Many children already know these facts. The next several lessons, however, are intended to make the concept of cardinal number explicit and to give the children practice in using it. The teacher should stress the idea that numbers are exact, and that imprecise answers to number questions may lead to unsatisfactory outcomes.

### MAIN ACTIVITY

a. Play the Count the Children game. To play, you will need pictures of groups of children or drawings of stick figures showing one child, two children, three children, and so on up to six children.

b. Hand out a picture to each child. Have each child count the figures on his or her own card.

c. Tell a story with a lot of numbers in it. For instance, you might tell of a mother who has three children, a bus with five children, one child who hides in a corner, and two children who hurt themselves on the playground. Ask which child has that many children on his or her card. Have the children count the number of children on their cards again, and tell them to remember the last number they counted. Have them say that number over and over so they will remember. Then, practice calling a number and seeing who remembers. If the children make mistakes, have them recount and try again to remember the last number. Tell the story again, this time having children hold up their cards as you say their numbers.

d. Retell the story with variations to see whether the children remember their numbers.

e. Switch cards. Replay the game.

f. Discuss what the children learned: when they count correctly, the last number tells them how many things there are.

### COGNITIVE FUNCTIONS

1. UNDERSTANDING CARDINAL NUMBER
2. BEING PRECISE AND ACCURATE

### VARIATIONS

Other countable items can be used such as pictures of rabbits and dogs, or balls. They do not have to be on cards; they can be hidden in paper bags given to each child.

### GENERALIZING ACTIVITY

Serve cookies or fruit for dessert. Distribute them unevenly in different piles. Ask the children to tell you how many there are in each grouping. If the children are able to, discuss which group has more, which has fewer, and how they know.

### BRIDGING DISCUSSION

Discuss with the children what they should say when you ask, "How many [ \_\_\_\_ ] are there?" Discuss times from the playground, home, school, or elsewhere when we need to know how many things there are, as when counting plates for lunch, pencils for drawing, or people for a game.

### OTHER BRIDGING DISCUSSION

School:

Home:

Peer group:

Other:

### COGNITIVE MASTERY CRITERIA

When shown two or three objects, each child should be able, with help, to count and tell you how many objects there are. The child should be able to give a precise number rather than an approximate answer such as "a lot" or "some."

