

COGNITIVE FUNCTIONS

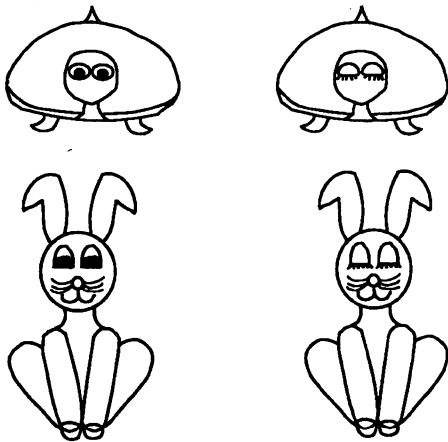
1. GATHERING CLEAR AND COMPLETE INFORMATION — PRECISION AND ACCURACY IN INPUT
2. COMPARING

RATIONALE

The purpose of this lesson is to promote the children's abilities to use two dimensions or two kinds of clues to classify an object or picture.

MAIN ACTIVITY

- a. For each child have a piece of paper with lines dividing the paper into fourths.
- b. Have pictures (line drawings) of two kinds of animals such as a turtle and a rabbit.



Provide two versions of each animal, for instance, side view vs. front view, eyes open vs. eyes closed, or sitting vs. standing.

c. Show the children the two pictures of the turtle, and ask how they are different. Do the same with the two pictures of the rabbit.

d. Make one pile of the four pictures, adding some duplicates, and tell the children you are going to make two piles out of the pictures. Have them decide on one way to divide the pictures, by animal type or by open eyes vs. closed eyes. Have them divide the pictures into two piles using a different clue.

e. Combine the pictures into one pile again, and have the children sort them into four piles. To see whether they can generalize the classification, slip into the pile a slightly different rabbit or turtle with eyes open or closed.

VARIATION

The lesson can be continued for several days by varying the content. Suggested sets of pictures are a dog and a horse running and standing, an insect and a bird standing and flying, a rabbit and a boy hiding behind a rock with only ears or a hat showing.

GENERALIZING ACTIVITY

(a) Show the children a circle, and ask them what it is. Then tell them it is (1) the sun, and draw rays around it; (2) a wheel, and draw spokes and the rest of a bicycle; (3) a balloon, and draw a string and a tie on it; and (4) a ball, and draw seam lines on it. Point out that the drawings are all round but that roundness is only one clue. Help the children understand that the class **round things** may include very different things. Do the same exercise with a square. It could be a window, a package or box, a brick, a chair seat, or a piece of paper.

(b) Take the reverse approach. Show the children pictures of things that are round and ask them what is alike about all the pictures. Then ask if they are pictures of the same thing. Ask how they are different. Conclude that just because two things are alike in one way does not always mean that they are the same thing. Give lots of examples — wearing pants does not mean someone is a boy, being red does not mean a shirt is a fire engine.

BRIDGING DISCUSSION

Using the examples below, discuss how sometimes things are both alike and different:

- a. Children: Grant and Sam are both boys — alike, but Grant has dark hair and Sam has light hair — different.
- b. Seasons: Trees have leaves — alike, but the shape of the leaves varies — different.
- c. Feelings: Maria and Sylvia are girls — alike, but they may feel happy or sad — different.

OTHER BRIDGING DISCUSSION

School:

Home:

Peer group:

Other:

COGNITIVE MASTERY CRITERION

Given eight cards, each with a drawing — a large heart or star, or a small heart or star — so that there are two of each size and shape, each child should be able to put them in four piles and tell the dimensions of classification of each pile.



Lesson 12

COGNITIVE FUNCTIONS

1. UNDERSTANDING CLASS INCLUSION
2. GATHERING CLEAR AND COMPLETE INFORMATION — PRECISION AND ACCURACY IN INPUT

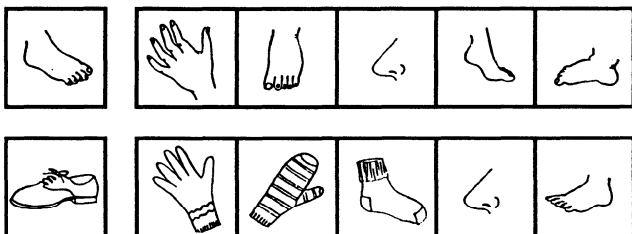
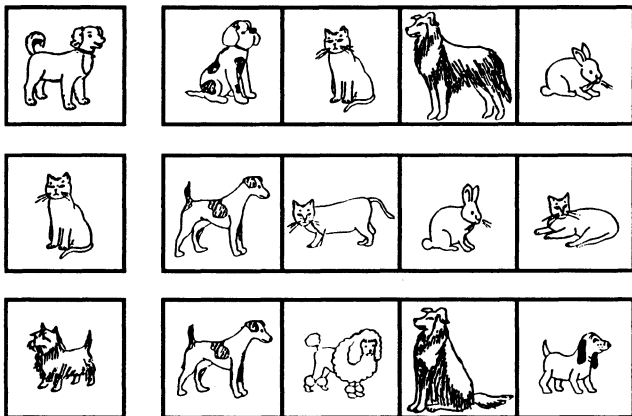
RATIONALE

The purpose of this lesson is to give the students practice in thinking of classes of objects as being composed of subclasses. For instance, the class of dogs is composed of big dogs, small dogs, puppies, poodles, collies, and so on.

MAIN ACTIVITY

The main activity involves two Fun Sheets on which each line is examined according to the teacher's instructions. Suggested variations use the same format but different pictures.

- Provide copies of Fun Sheets 1 and 2, found on pages 20 and 21, and crayons or markers. Discuss the rules for Fun Sheets: (1) Wait for instructions, and (2) Listen to instructions carefully.



- Discuss the characteristics of Fun Sheet 1. Then do Fun Sheet 1 according to the following instructions:

While pointing to the top row, ask, "In the first little box, what do you see? (*a dog*) In the boxes beside it, circle (or mark an X on) two more dogs." Discuss looking strategies, counting 1, 2.

While pointing to line 2, ask, "What's in the box? (*a cat*) In the boxes beside it, find and mark two more cats." Discuss which ones the children marked and why.

For line 3, ask, "What's in the box? (*a dog*) On the same line, mark one more dog." Ask, "How did you know which one to mark?" Point out that it really did not matter since all the boxes had dogs.

Have the children use a different color to mark two other dogs, ones with long hair. Discuss how the children knew what to do.

- Have the children do Fun Sheet 2 following these instructions:

Line 1: Have them identify what is in the small box. Then, mark another foot in the row. Discuss how many feet there are on the line. Did it matter which other foot they marked?

Point out that a foot is a part of one's body. Have the children use a different color to mark another body part. Refer to the Simon Says game or to Busy Bee in the Self-Regulation Unit and ask, "What's a body part? What game have we played that used different body parts?" Then ask the children which picture they marked. Is a nose a body part? Is a hand a body part? Did it matter which one you marked? (*No. Both are body parts.*)

Line 2: Ask the children to mark another shoe. (*There is none.*) Then, have them mark two other pieces of clothing. Discuss which two they selected. Have them name some other pieces of clothing that were not on the list.

VARIATION

The series of exercises can be used with different stimuli, such as blocks, pictures from magazines, or little objects. The structure of the task is as follows: Give each child instructions to find one more or two more items like the model. Make sure that the model is not exactly like the items to be retrieved. Use base-level concepts such as "block," "jacket," "shoe," "book," and also broader, more general concepts such as "pieces of clothing" and "toys."

