Activity 2

WHAT IS THIS ANIMAL?

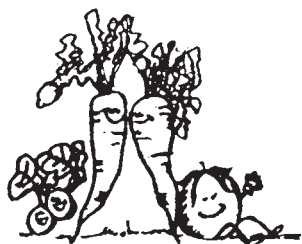|	
STUDY QUESTION:	Can we develop a way of identifying animals we have not seen before?
THE ACTIVITY:	Students arrange animal pictures in a series of increasingly specific groups based on their similarities and differences.
CURRICULUM FIT:	**DIVISION ONE - LANGUAGE ARTS** ● Follow simple oral directions. **DIVISION ONE - SCIENCE** ● Observations, classification.
AGRICULTURE CONCEPTS: Diversity	
PURPOSE:	To develop students' abilities to attack a problem in an organized way.
MATERIALS REQUIRED:	Supplied in this activity.
TIME REQUIRED:	40-50 minutes.

BACKGROUND - For the Teacher

In addition to its intrinsic value in science, the scientific approach to the world provides valuable thinking tools for everyday life. In this lesson your students practice using one tool of this approach, the dichotomous key.

This technique gets its name from the fact that it procedes by dividing groups into two sub-groups, i.e. by setting a series of dichotomies.

NOTE:
You can help yourself and your students by not burdening them with this name. There is plenty of time for those who specialize in science to learn it.

Like all science skills, this one depends on accurate observation and the use of real, visible characteristics for sub-dividing.

PROCEDURE

Part 1

Preparation

1. Decide on a way to organize your students into groups of three. (If your class is not an even multiple, then a group of 2 or 4 will be fine).

2. Make enough copies of the student resource sheet so that each group can have one.

Part 2

Introduction

3. Tell the students that today they will be looking at farm animals, and divide them into working groups of three.

4. Give each group a copy of Student Resource Sheet One and have them cut the sections apart.

Part 3

Activity

5. Ask each task group to organize their pictures into two categories and tell the reason they chose those categories.

6. Have the groups each focus on one of their two categories and divide it into two smaller groups.

NOTE:
When there is only one member of a category that path is finished. See teacher's resource sheet categories 3B, 4A, 4B, 5B, 6B, 7A, 7B.

7. Repeat the splitting process until every animal is in its own group.

Part 4

Conclusion   8. Have the students make a map that shows how they separated
                      out their animals.

                  9. Ask the class what they would have to do if somebody added a cat
                      or a canary or a snake to the original list and asked them to include
                      it in the dividing process.

DISCUSSION QUESTIONS

1. Could we use this same procedure to identify cars? How?

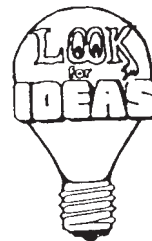2. Can we classify television programs this way? How?

RELATED ACTIVITIES

1. Have students bring in pets (or photos of their pets) and use them as the basis of a
    key.

2. Have the students make lists of the needs, lives, useful products and similar facts
    about farm animals.

A SAMPLE SEQUENCE

Group 1

cow	turkey	dog	chicken
horse		sheep	duck

hair or feathers?

Group 2A

turkey
duck
chicken

Group 2B

cow
dog
horse
sheep

webbed feet?

hoofs or claws?

Group 3A

chicken
turkey

Group 3B

duck

Group 5A

cow
horse
sheep

Group 5B

dog

big or little?

horns?

Group 4A

turkey

Group 4B

chicken

Group 6A

cow   sheep

Group 6B

horse

hair curly or straight?

NOTE:
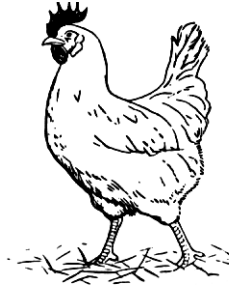This is only one sample sequence;
it is not the only correct (or even
best) pattern. Anuthing your class
can do is right if it works.

Group 7A

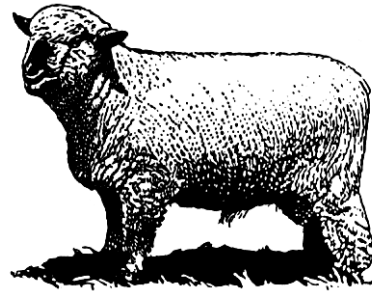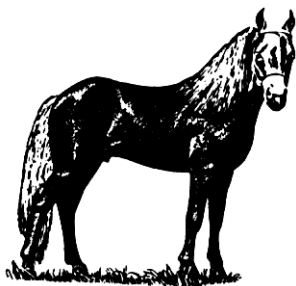sheep

Group 7B

cow

SHEET ONE - The Animals

cow

chicken

turkey

sheep

dog

horse

duck