Name: _____

CASE

Project 2.2.3 The Key to Breeds

Purpose

When a group of animals has similar characteristics that separate them from animals within the same species the group is considered a breed. Producers developed breeds to improve the efficiency and usefulness of animals for specific purposes such as showing, meat production, and fiber production. Some species have many breeds while others have only a few. Identifying every breed of animal is challenging even for animal scientists and livestock producers.

One method to learn to identify breeds or other groups of objects is to use a dichotomous key. A dichotomous key is a systematic approach to identification that asks you a series of yes or no questions that become increasingly more specific. By observing physical characteristics of animals, you can identify specific breeds. Refer to your notes from the presentation *Breed Recognition*; can you develop a dichotomous key for different breeds of a livestock animal?

Materials

Per pair of students:

- 22"x28" poster board
- Glue stick
- Assorted markers
- Computer with Internet access and color printer

Per student:

- Pencil
- *Agriscience Notebook*

Procedure

In this activity, you will be working with a partner to develop a dichotomous key used to identify breeds of animals. Your teacher will assign you and your partner an animal to work with and a list of breeds for that animal.

1. Research each breed and determine what characteristics are used in identifying that breed.

2. Design a dichotomous key for others to use in breed identification.

3. Develop a poster to demonstrate the use of your key. Find and print a good picture of each breed and attach to your poster.

4. Neatly write your dichotomous key on your poster and display for the class to view and try out your "new" key.

5. Refer to *Project 2.2.3 Evaluation Rubric* for assessment requirements while developing your poster.

Conclusion

1. What other agricultural applications do you think use dichotomous keys?

2. Why do you believe observing the characteristics of objects is an important first step in identification?