

CASE

*Curriculum for Agricultural
Science Education*

Principles of Agricultural Science – Animal

Breed Recognition

Unit 2 – Lesson 2.2 Naming Animals

What is a Breed?

- A group of animals with common ancestors and distinguishing characteristics.
- Developed through selective breeding
 - Selecting animals for specific traits over several generations

Breeds in Scientific Classification

- Sub-groups of a species
- Closely related and can interbreed
 - Has been cultivated by man for certain traits
 - Breeds true

Why Develop Breeds?

- Developed for specific purposes
- More efficient production
- Examples:
 - Dairy cattle vs. beef cattle
 - Race horses vs. draft horses
 - Wool sheep vs. meat sheep

Other Classifications

- Use or purpose based
 - Work
 - Meat
 - Companion
 - Fiber
- Anatomy based
 - Number of legs
 - Type of digestive system
 - Body covering

Organizing Classification



Dichotomous Key

- Used to classify or sort groups of things
- Offers choices in pairs, one of which is true and the other false

Using a Dichotomous Key

- First, select the true choice.
- If that choice leads to another number or letter in the key, go to that place in the key and decide between the next two choices.
- If the choice you make leads to a name, you have probably identified your organism.

Making a Dichotomous Key

- ✓ Start by observing the group of objects to be used in the key.
- ✓ List the most general traits that can be used to divide the organisms into categories.
- ✓ Each step involves making choices between two characteristics. These characteristics are grouped 1a and 1b, 2a and 2b, and so forth.

Making a Dichotomous Key

- ✓ The statements need to lead the observer to the next step to narrow the identification further.
- ✓ Each step either identifies and names an object or gives directions as to where to go next in the key.
- ✓ There should be one less step than the total number of organisms to be identified in your dichotomous key.

Example

1. The object is used for writing....2
1. The object is used for organizing...3
2. The object is makes a gray mark...pencil
2. The object makes a blue mark...pen
3. The object is metal...paper clip
3. The object is elastic...rubber band

References

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- Herren, R.V. (2007). *The science of animal agriculture (3rd ed.)*. Clifton Park, NY: Delmar.
- Maryland Sea Grant. (2008). *How to make a dichotomous key*. Retrieved from http://www.mdsg.umd.edu/programs/education/interactive_lessons/key/student1.htm