



Do Animals have Color Preferences?

Time: 45 Minutes **Skill Level:** Beginning (age 9-11), Intermediate (age 12-14)

Background

What is Science Inquiry?

Children are natural scientists. From a very early age they explore the world, ask questions and seek answers. This journey of exploration and discovery is Science Inquiry. Science Inquiry helps young people understand their environment, solve problems and gain knowledge about scientific ideas and processes.

Science and Engineering Practices Youth Should Become Familiar With Are:

1. Asking questions
2. Developing and using models
3. Planning and carrying out investigations
4. Analyzing and interpreting data
5. Using mathematics and computational thinking
6. Constructing explanations
7. Obtaining, evaluating, and communicating information

Watch the Video: <http://oregon.4h.oregonstate.edu/science-engineering-and-technology>

Materials List:

- 1-4 goats or animal of your choice
- 4 different colored shirts and/or feed buckets
- 4 feed buckets if not testing feed bucket color- empty cottage cheese container or similar
- 4 youth participants
- Grain from the goat's regular feed supply

Discuss....What do students know about goats (or the animal they work with)? Do any students own goats or show them in 4-H? Do they think goats have personalities or are “intelligent”? What do they think motivates a goat? (need for shelter, food, water). Ask the students to share their favorite color and ask if they can explain WHY it is their favorite color.

Predict....What do students think will happen with the color choices to be given to the goat?

Experience “What to Do”- What is the plan for the investigation?

Have 2 youth stand 25 feet apart from each other and at least 50 feet from the pen or person holding the goat.

The youth should be in direct line of sight to the pen or person holding the goat.

Each youth is to be wearing a specific color of shirt or holding a specific color of feed bucket.

Release the goat and see which youth the goat approaches to get some grain.

Repeat several times. Place only a small amount of grain in the buckets each trial to avoid overfeeding the goat.

Share ...

Document your findings each time the goat is released:

Did the goat go to the same color shirt/feed bucket every time?

Did the goat eat from each youth/feed bucket or did they prefer one or the other?

Did coaxing the goat help in any way?

Did you use more than one goat?

What other things did you observe?

Reflect ...Analyze and interpret the data and results. Discuss among the group.

What other questions do you have now that you conducted this experiment?

Did it matter whether the youth were male or female? Why?

Did the goat tend to go to the same youth regardless of color? Why?

Would things have been different if it was an adult rather than a youth? Why?

How could you have done this experiment differently?

Generalize ...to real world examples. Construct explanations.

Did you come to any conclusions as to whether or not goats prefer a specific color?

Apply ...outside the classroom or club meeting.

How can you apply this learning process to other areas of your life?

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Agriculture Sciences & Natural Resources, Family & Community Health, 4-H Youth, Forestry & Natural Resources, and Extension Sea