Farm Animal Health: Is my animal sick?

**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

**The Scenario for Today’s Lesson**
Generally speaking, goats are curious animals. They are herd animals and like to stick together. They have “perky” personalities, and often come running when it is time to feed.

However, Bucky the Goat’s owner has noticed that Bucky is looking depressed. He is hanging his head, and his ears are droopy. He has sort of a distant look in his eye. He is hanging out by himself, doesn’t really want to socialize with his other friends. He has been laying down more than normal and he does not feel like eating very much.

The students are not asked to diagnose an illness but rather to see if we can find out if Bucky is not feeling well and if so what may be the cause. Always remember that if you cannot find the cause or are not comfortable investigating, it is best to contact a veterinarian.
Watch the Video: http://oregon.4h.oregonstate.edu/science-engineering-and-technology

Materials List:
One or more goats or other docile farm animals
Pencil and paper
List of normal animal behavior and physical condition—stays with herd, eyes bright without discharge, nose moist without discharge, no wounds evident, etc., look to animal science books for more references to normal animal behavior.
List of environmental factors to check i.e. feed and feed storage, water trough, pasture condition and types of plant, plants animals can reach outside their fence, pen area, condition of feces, etc.

Discuss….What do students know about goats (or their selected animal of choice)? Do any students own goats or show them in 4-H? Go to the farm yard where students can see the animals. What are normal animal behaviors and physical conditions we should see in these animals? What would you consider a cause for concern if you saw it in an animal?

Experience “What to Do”- What is the plan for the investigation?
Have youth work in groups of two. Prepare a check list, or have youth brainstorm to come up with a check list on their own of various things to investigate in relation to the general care and management of the animals they are looking at. Each group is to investigate each item on the lists for reliability and to ensure nothing is overlooked on the check list.

Share …
Document your findings:
Does Bucky have access to clean water?
Does Bucky’s feed look fresh and healthy?
Is Bucky’s pen area clean and free of debris?
Are there any strange weeds or vegetation that Bucky can eat in the pasture?
What does Bucky’s feces look like? (i.e. small round dry pellets? Or wet and mushy?)

Reflect …Analyze and interpret the data and results. Discuss among the group.
What other questions do you have now that you conducted this investigation?
When should you call a vet?
What other things could cause an animal to not feel well?
How could you have done this Investigation differently?

Generalize …to real world examples. Construct explanations.
Did you find out what may be the cause of Bucky not acting well?

Apply …outside the classroom or club meeting.
How can you apply this learning process to other areas of your life?

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