Understanding Animal Behavior

Connections to Africa

Grade Levels

Grades 4-6

Engage

This activity is designed to start your students in recognizing themselves as scientists and thinking critically about problem-solving. The goal is to teach concepts through discovery and to encourage using scientific thought processes. As with all lessons provided, please feel free to adapt them according to your students' abilities. You may find it more successful to lead activities and discussions as a whole group as opposed to having your students' work in small groups. Certain scientific vocabulary may or may not be appropriate for your students' level of understanding. Take these ideas, make them your own and your students will have a greater chance at success.

How would an ethogram for your pet compare to an ethogram of a wild animal?

1. Begin this lesson by asking your students if they remember what an ethogram is? They used an ethogram to help them record elephant behavior during their Zoo visit. (An ethogram is a list of observed behaviors generated by a scientist to help them better record and understand an animal's behavior.)

Explore

2. Working in groups, have your students identify one type of pet that the majority of them have at home or in a family member's home, such as a dog or cat, and make a list of everything they've seen that pet do. Behaviors might include things their pets have done while they were playing with their owners, things they've done on their own, behaviors inside or outside, etc.
3. This step can be completed in the classroom, or you can give the task to your students as an assignment to bring home and create while watching their pet that evening.

Explain

4. Ask your students how long each of them have had the pet they made the ethogram for? The students who have had their pets the longest should stand on one side of the room, and work their way down to the students who have had their pets for the shortest amount of time on the other side of the room.

5. Have students compare their list with the lists of a couple students standing near them. What similarities do you see? What differences do you see? Record their findings on the board in the classroom.
6. Now ask a few students who have had their pets for the longest compare their lists with a few students who have had theirs for the shortest amount of time. What similarities do you see? What differences do you see? Record their findings on the board.
7. Knowing more about an animal can change how you view their behavior. Ask your students if they can identify any specific behaviors from their ethogram that tell them their pet is in a good mood? How about a bad mood? Can your pet's behavior tell you what they are feeling? Or maybe if they want something? (The second step in creating a proper ethogram is inferring what the behaviors might mean. This is done properly by spending more time observing the animal so that the scientist can make an educated decision)
8. Now that your students have created an ethogram for their pet, how could they use it? Could that list of observed behaviors help them to learn anything about their pet? What if they noticed that one specific behavior was happening all of the time? What could that mean?

Expand

9. Have your students visit the Connections to Africa page on the Zoo's website. Open the "Collected Elephant Observation Data" file. It contains all of the information that has been collected during programs at the Zoo. What can they learn about the behavior of our elephants from the collected data? (Can they infer what any behaviors might mean based on what other elephants are doing at the same time, or by what the weather that day might be?)
10. Working in small groups, have your students create a presentation comparing and contrasting their own ethograms to the elephant data collected at the Zoo. Students can find useful photos and videos for their presentations at the Zoo's Online Resource Library at resourcelibrary.clemetzoo.com. Other websites can also be used to find materials for their presentation.

Assess

11. Once all groups have presented to the class, ask them a few questions to determine what they learned. How are the different ethograms similar? If they are different, why are they different?
12. If the students are working in small groups, observe their work and review what they are writing on the Research Plan. If working as a whole group, fill in the Research Plan together.

Standards

Ohio Academic Content Standards
Grade 5 Life Science Topic: Interactions with Ecosystems Organisms perform a variety of roles in an ecosystem

Next Generation Science Standards
Interdependent Relationships in Ecosystems MS-LS2-2 Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems

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Supplemental Materials

My Research Plan

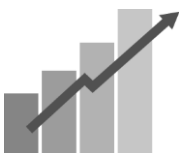
1. Questioning
State the problem.
Make a hypothesis.

2. Planning
Make a plan by asking these questions (think, talk, write)

3. Implementing
Gather the materials.
Follow the procedures.
Observe and record the results.

4. Concluding
Draw a conclusion.

5. Reporting
Share my results (informal)
Produce a report (formal)



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