



Reindeer Behavior

Virtual Classroom Extension

Objective

This activity is designed to help your at-home students see themselves as scientists and begin to think critically about problem-solving. The goal is to share concepts through discovery and to encourage using scientific thought processes. As with all lessons provided, feel free to adapt them to your students' abilities. Certain scientific vocabulary may or may not be appropriate for your students' level of understanding. Take these ideas, make them your own, and your child will have a greater chance at success.

Materials

Stopwatch/timer, writing utensil, data sheet found at the end of this lesson plan.

Duration

10-15 minutes

Background Information

The study of animal behavior is called ethology and it can help scientists better understand animals which provides valuable knowledge to inform how to best care for them in zoos, as well as inform conservation efforts to help the species overall. When scientists conduct animal observations, they use something called an ethogram. Ethograms are a list of observed behaviors an animal might exhibit and when used, they help to ensure consistency between many scientists conducting the research.

There are many different ways to collect animal behavioral data. For this activity, you will use a process called "point scan sampling." At predetermined intervals (like every 20 seconds, for example), you will record what the animal is doing at that exact moment in time. This provides a snapshot as to the animal's behavior and when combined with many other data sets, scientists can begin to make conclusions about the behavior of that animal or group.

Procedure

1. Begin this activity by discussing what an ethogram is and why it's important for scientists to collect animal behavioral information. Also discuss why a zoo or aquarium might be interested in how an animal uses the space it lives in.
2. If you have not done so already, watch the Reindeer Virtual Classroom video <https://resourcelibrary.clemet zoo.com/Area/21>. Tell your students to make a list of some observations they have about the reindeer and what the reindeer are doing.
3. Explain that a scientist's initial observations can often lead to a research question. Ask your students if they have any questions about reindeer or reindeer behavior that they can answer just by watching the reindeer. Help them to come up with a question they can answer. If you need help coming up with some questions, here are a few examples:
 - a. Which areas of the habitat do the reindeer spend the most time in?
 - b. What is the most common behavior seen in the reindeer?

- c. How often do reindeer interact with each other?
4. Discuss with your student how they would answer their question. What sort of information would they need to collect and how would they collect it?
 5. Make a list of all the behaviors they observed the reindeer do in the past that would need to be recorded to answer the research question. These might include feeding, playing/socializing, sleeping/resting, walking, standing, sitting, vocalizing, and/or cleaning themselves.
 6. After they've created their list, it's time to put it into a data sheet. An example can be found at the end of this activity sheet. You can use this one exactly how it is provided or create your own.
 7. For this activity, your students will be using a method of data collection called "point scan sampling." They should decide how often and for how long they want to record data (consider every 20, 30, 45, or 60 seconds for at least five to 10 minutes). At the exact interval moment, they should record what the reindeer is doing and/or where in the habitat the reindeer is. Reminder – they will see many different types of behaviors between each interval while watching your animal, but it is important to only record the behavior that is happening at the specific interval.
 8. Tell your students that they will watch the video a second time, but this time they will record their observations scientifically to try to answer their question. It may be a good idea to turn off the volume so that the dialogue from the educator does not distract the students from their observations.
 9. After the time period is completed, review the data with the students. How can their data help them to answer their research question they created?

Ohio's Learning Standards

Science Content Standards
Grade 3 Life Science Topic: Behavior, Growth and Changes 3.LS.2: Individuals of the same kind of organism differ in their inherited traits. These differences give some individuals an advantage in surviving and/or reproducing.

Create a pie chart or bar graph to summarize your findings:



