



Understanding Red Panda Behavior

Virtual Classroom Extension

Objective

This activity is designed to help your at-home students see themselves as a scientist 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, crayons, red panda behavior 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. Studying animal behavior provides valuable information that is used to provide the best care for them in human care, as well as inform conservation efforts for the species in the wild. When scientists conduct animal observations, they use a tool called an ethogram. Ethograms are a list of observed behaviors an animal might exhibit and when used, helps to ensure consistency among 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 red panda Virtual Classroom video <https://resourcelibrary.clemetzoo.com/Area/21>. Discuss what your students learned from the video. What was the red panda doing in the video?
3. 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 the question, "how does the red panda use its habitat space?"

4. For this activity, they will be using a method of data collection called “point scan sampling.” Have your students record what the red panda is doing, and where it is doing that activity. Reminder – they will see many different types of behaviors between each interval while watching the red panda, but it is important to only record the behavior that is happening at the specific interval.
5. After the time period is completed, review the data with the students. How did the red panda spend its time? Some questions to discuss might include the following:
 - a. What types of activities did you observe the red panda doing?
 - b. Where did it tend to do most of these activities, on the ground, or on a structure in the habitat?
 - c. How would you answer the question, “how does the red panda use its habitat space?” What evidence would you use to support your answer?
 - d. If you were to watch a video of a red panda in the wild, at a different zoo, or even at a different time, do you think you would see the same results? Why or why not?

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.

Math Content Standards
Grade 4 Measurement and Data Topic: Represent and Interpret Data 4.MD.4 Display and interpret data in graphs (picture graphs, bar graphs, and line plots) to solve problems using numbers and operations for this grade.

8:30								
9:00								
9:30								
10:00								
TOTAL								

To help figure out how often the red panda did each activity in each location, count the number of G's you wrote for each behavior. Put it in the corresponding boxes in the table below. Next, do the same for the number of S's.

	Feeding	Playing/ Socializing	Sleeping/ Resting	Walking	Standing	Sitting	Vocalizing	Cleaning Themselves
Number of G's								
Number of S's								

Use the provided chart below to create a bar graph that shows how often the red panda did each behavior both on the ground and on the structures in its habitat. Use one color to create a bar for all the times the red panda was on the ground, and a different color for the number of times the red panda was on a structure for each behavior. For instance, if it walked 3 times on the ground and 5 times on the structures, the bars for "walking" might look like this:



