



Learning with Fresno Chaffee Zoo

Tarangire Elephant Project: Animal Ethogram

Objective

After this activity, students will show understanding of ethograms and their role in animal research.

Standards

MS-LS2-1: Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem.

MS-LS2-2: Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems.

Materials

Ethogram Worksheet

Animal to observe

Stopwatch or timer

Lesson

Ethograms are one way researchers and biologists gather information on animals. To create an ethogram, a person observes an animal at intervals over a set period of time, and makes note of what the animal is doing. This process gives researchers information about what animals do, how often, and how much. Information gathered from ethograms can tell researchers about a single animal, a population, or an entire species. It can be used to make decisions about conservation, human infrastructure, and even managed care in zoos and aquariums.

Students will use the Ethogram Worksheet to make observations of an animal. This can be done at home, in class, or anywhere students can find an animal to observe. In a classroom without animals, a live feed video may be the best option. Many are available online, but the Fresno Chaffee Zoo Live Feed from African Adventure can be found here:

<https://www.fresnochaffeezoo.org/experiences/african-adventure/>

To fill out the ethogram, students should fill in all sections possible. After they write their name and the date, they should pre-fill as much information as possible. Location is the location of the animal. For species name, basic is acceptable ("rhino"), but encourage students to look up more detailed information ("Southern white rhino, *Ceratotherium simum*"). They should write down any information they know or can observe about the animal ("male dog, a pet, four years old"). Students may wish to fill in the start time last, just as they begin their observation.

They will make a recording of what the animal is doing **every two minutes** by placing a checkmark in the appropriate box. After they have made six observations over ten minutes, they will answer the questions at the bottom of the page.

Extension Ideas

Have students observe different individuals of the same species. After they make their observations, have them compile all of their data in a collective graph to make a species profile.

If students observe different animal species, have them compare the amount of time different species engage in different activities.

Have students review data to see if they can note any difference in activity tied to environmental conditions such as time of day or weather.

Fresno Chaffee Zoo Behavioral Ethogram

An ethogram is a recording of different behaviors observed in an animal over time. It is one of the ways scientists and researchers learn about animals and record data. To practice your research skills, you will observe an animal. You may use a live animal or a recording, as long as you can observe the same animal for ten minutes. Fill out the information below with your observations.

Student Name: _____ Date: _____ Start Time: _____

Location: _____ Weather Conditions: _____

Species Name: _____

Description of Habitat: _____

Description of individual animal: _____

Minutes	Eating	Traveling	Resting	Drinking	Socializing	Vocalizing	Grooming	Foraging/	Others
:00									
:02									
:04									
:06									
:08									
:10									

Did you observe any unusual behavior?

Which activity did you animal spend the most time on?

Do you think your ethogram would look the same if you chose a different animal? Why?
