

Animal Behavior

Illinois Goals and Standards

Science: 11.A, 12.B, 13.A, 13.B **Math:** 10.B **English Language Arts:** 4.A, 5.A

Program Overview

The first part of the program will provide students with background information on studying animal behavior. During this component, they will learn how to carefully observe and record data that focuses on what animals are doing and how they use their exhibit space. After this brief introduction, students will travel to one of the zoo's exhibits to conduct their own animal behavior study. At the end of the observations they'll review their data sheets, draw conclusions and share their discoveries with their peers.

Lesson Objectives

- Students will observe and describe common animal behaviors.
- Students will identify similarities and differences between two different species.
- Students will record data based on careful observations.
- Students will draw conclusions based on collected data.

Background Information

The study of animal behavior is called ethology. When scientists conduct observations they rely on set procedures in order to collect data that is as accurate as possible. They often use something called an ethogram, a list of all possible behaviors, when observing animals. Using an ethogram helps when multiple scientists are observing the same animal to ensure their data is consistent enough to be compared. There are many different ways to collect behavioral data. A common method is interval sampling, during which the observer notes what the animal is doing at pre-set, evenly spaced time intervals.

Students will participate in two types of animal-behavior observations. They'll spend time at one of the zoo's bird exhibits and learn how to identify and record specific types of common bird behaviors such as feeding, resting or flying. These types of studies can help scientists learn more about the most common behaviors of different species. Students will also spend time observing some of the zoo's primates. Here they will learn about collecting data on which areas of the exhibit the animals are using. This is called a space-use study. This type of study helps us to determine where animals spend their time and can aid in exhibit design.

Studying animal behavior is a critical component in conserving wildlife. It provides zoo staff with information that can aid in caring for animals at the zoo and provides scientists with information that can help conserve wild populations.

How to Prepare

While advanced preparation is not required for a successful visit, reviewing a few basic skills before your visit can help make your students' experience more meaningful.

- To support the data-collection activity, review the definition of time interval. Students will be recording data at set times. Understanding what a time interval is will be helpful to this process.
- To support observation skills, review how to look carefully at things for several minutes at a time.
- To support sharing discoveries, review the vocabulary below and how to respectfully share ideas with peers and draw conclusions.

Vocabulary:

Behavior

Observation

Time Interval

Ethology*

Ethogram*

* Teacher Note: The study of animal behavior is called ethology. When scientists conduct animal observations, they rely on specific procedures in order to collect data that is as accurate as possible. Ethograms are a list of all the possible behaviors an animal might exhibit. To learn more about ethograms and ethology, visit www.ethosearch.org and select the education track.



Back at School

Extend the Inquiry

We hope you'll continue your explorations long after your zoo visit. We've provided a few ways you can extend inquiry-based explorations of animal behavior to the classroom.

1. Use an ethogram from www.ethosearch.org to observe the behavior of a schoolyard animal such as a squirrel or bird.
2. Have students use the tool on the EthoSearch website to create an original ethogram of an animal they encountered on school grounds.
3. Encourage students to observe a schoolyard animal and record the different areas of the schoolyard it most commonly uses.

Connect Across the Curriculum

These are a few ways you can connect your science investigations with other areas of the curriculum.

Math

- Have students compile the data collected above and create charts and graphs to clearly communicate their results.

Art

- Encourage students to create scientific illustrations of the schoolyard animals they observed.

English Language Arts

- Prior to using an ethogram, have students record general behavior observations in a field journal.