Lincoln Park Zoo

Animal Classification

Program Overview

The first part of the program will provide students with background information on methods of animal classification. During this component, students will learn how scientists group different animals and discuss similarities and differences between each animal group. After this brief content introduction, students will travel to one of the zoo's exhibits to conduct their own animal observation. Observing carefully, they'll apply their new knowledge and classify zoo animals based on physical characteristics. Students will record their findings on a provided data sheet. At the end of the observation, they'll review their data sheets to determine which group was most commonly represented and share their discovery with their peers.

Program Objectives

- Students will observe and describe similarities and differences between animals.
- Students will classify animals based on appearance and habitat.
- Students will record data based on careful observations.
- Students will draw conclusions based on collected data.

Background Information

Animals are alike and different in many ways. Scientists often classify animals into groups to help organize the way they study them. Animals can be classified in many different ways and not all scientists agree on all methods of classification. Animals can be classified into groups based on how they look, their adaptations, where they live and how they behave.

For this activity, we will be using biological classification to group animals. Students will learn the difference between animals with backbones (vertebrates) and animals without backbones (invertebrates) and the many different species within each group. They will also learn to classify vertebrates into five basic groups: mammals, birds, reptiles, amphibians and fish based on physical characteristics and the habitats in which they live.

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 how to make tally marks with students as well as how to add tally marks to reach a total.
- To support observation skills, review how to look carefully at things for several minutes at a time.
- To support the data-collection activity, review how to draw and label an accurate representation of an animal or object.
- To support sharing discoveries, review the vocabulary below and how to respectfully share ideas with peers.

Vocabulary:

Classification	Adaptation	Vertebrate	Invertebrate	Mammal
Bird	Reptile	Amphibian	Fish	

Back at School

Extend the Inquiry

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

- See what animals live near the schoolyard. Can students classify them using what they learned at the zoo?
- Invertebrates are likely to be the most common animals living on a schoolyard. Ask students to classify invertebrates into different groups. They might group them by the number of legs they have or the shape of their bodies.
- Practice classification using plastic animal models. Encourage students to classify animals and verbally explain why they grouped them the way they did.

Connect Across the Curriculum

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

Math

- Graph data collected during schoolyard observations. What group of animal was the most common? How many different types of animals did students find?

Visual Arts

- Before the invention of photography, paintings and drawings were the only way for naturalists to share images of elusive or newly discovered animals. Encourage students to make a realistic painting or drawing of an animal they saw at the zoo.

English Language Arts

- Place students in pairs. Have students take turns thinking of an animal and then encouraging their partner to guess their chosen animal by asking twenty questions. Students should try to incorporate information they learned during their zoo visit.