

Title: Classifying Animals

Grade level: Grades 1-3

State Standard: 12A Students who meet the standard know and apply concepts that explain how living things function, adapt, and change.

Performance Descriptor: Classifying animal groupings according to simple taxonomy guides or characteristics (e.g., locomotion, color, habitat, reproduction)

Objectives: Students will understand:

- We classify things everyday in different ways, but always have a reason.
- Scientists classify things to make it easier to identify and discuss discoveries.
- Classifying is arranging things into groups according to specific characteristics that they have in common.

Materials Needed:

Everyday objects classification handout

Scissors

Animal classification handout and teacher cards

Pencils/clipboards optional

Background Information:

This lesson and the attached activities are designed to help lead discussions about classification and how it is used in Science. In the first activity students use their own reasoning to classify items. They may group objects by how they look, their function, or where they normally would see them. These are the first steps in simple scientific classification!

At the primary levels most texts teach the six basic classification groupings for animals with backbones. These are Reptiles, Amphibians, Birds, Insects and Mammals. Some of the main characteristics for each of these groups are listed below:

Reptiles	Fish	Birds	Insects	Mammals	Amphibians
Has a backbone Scales Some hatch from eggs Cold-blooded	Has a backbone Scales Fins Gills Cold-blooded	Has a backbone. Feathers and wings Hatches from eggs Warm-blooded	Has an exoskeleton Six legs Can have wings Three body parts Antennae	Has a backbone. Usually has fur. Gets milk from its mother. Warm-blooded	Has a backbone. Spends part of its life in the water and part out. Cold-blooded

Step-by-step Procedures:

- Use the “Everyday Objects Classification Handout” to begin to get student to think about classification and how they use it in their everyday lives. Give each student a copy and have them cut apart the pictures. Then instruct them to place all of the pictures into three groups. All pictures must be placed into a group and they cannot have more than three groups. This activity is designed to have minimal instructions from the teacher.
- Discuss the reasons students had for placing the objects in each of their groups. Make a list of the different reasons. This may include shape, color, use, location...etc. They will discover that they look for similarities to form groups.
- Next, you want to guide students into making a connection between how they group everyday objects to how scientists group animals. Show students the teacher cards. (Each of these represents one of the five basic classification groups: mammals, reptiles, birds, amphibians, and insects.) Discuss similarities and differences among the pictures. As students name off characteristics to specific groups make a list. Leave the scientific names blank until one of the students names the group. Many students know these group names. When done you should have a list for each group and the main characteristics for each group. (see background knowledge for more)
- Next, use the student handout and have students compare what characteristics they see in each picture and use that to help them decide which group the animal belongs to. Students can cut pictures out and group or label each picture on the handout.

What to Do At the Zoo:

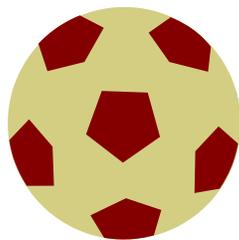
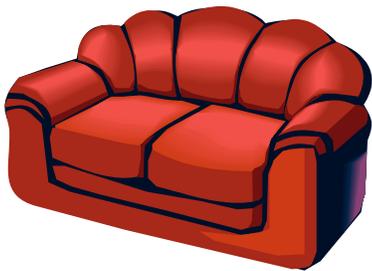
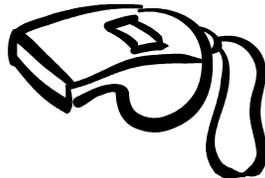
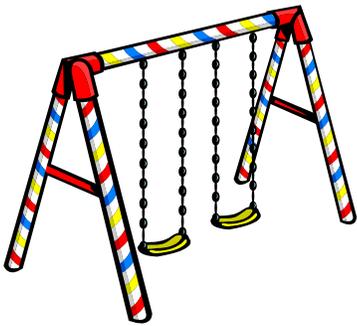
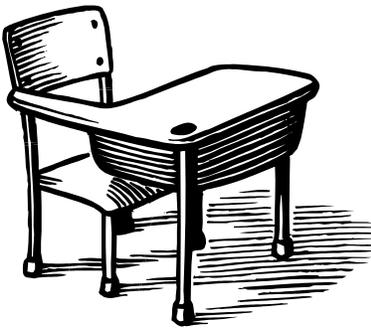
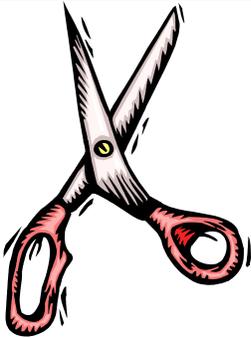
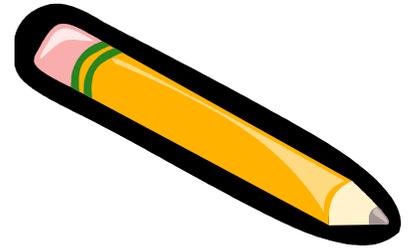
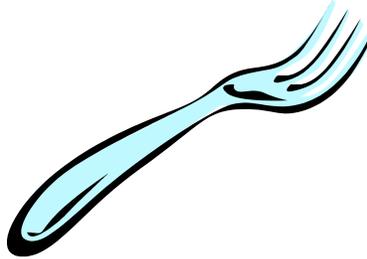
Once students have a basic understanding of animal classification there are many activities you can do while visiting Phillips Park Zoo. Here are a few ideas:

- Ask students as you visit exhibits what group each animal belongs to and have them share the characteristics of the animal that helped them decide on the group.
- Use a scavenger hunt format: have students use paper and clipboards to find and list as many different animals as they can for each group (only animals in the zoo count!). Once this data is collected have students create a graph to find out which type of animal is most abundant in the zoo!
- Before entering the Reptile House, have students predict what animals they might see and what characteristics they should be able to see on the animals that live here. Also pay close attention to the habitats in the Reptile House and temperature. What would a Reptile need a warm, humid environment?
- Ask students questions like: Why don't they have mammals living in the Reptile House or reptiles/amphibians outside all the time like the Elk?

Extension: Scientists use a system to classify animals that was designed by Carolus Linnaeus. He began using Latin and Greek words to identify plants and animals that have common characteristics. He used the following seven levels to identify organisms: Kingdom, Phylum, Class, Order, Family, Genus, and Species. To make this easier most scientists only use the Genus and Species names to identify them. Each exhibit in the zoo has an informational sign with the scientific name on it for each animal. For example: *Canis Lupis* is the scientific name for Timber Wolf. Students can try to predict what animal the name could represent or write down a few of the names and research how to fill out the entire 7 steps of Linnaeus' system.

Classifying Everyday Objects

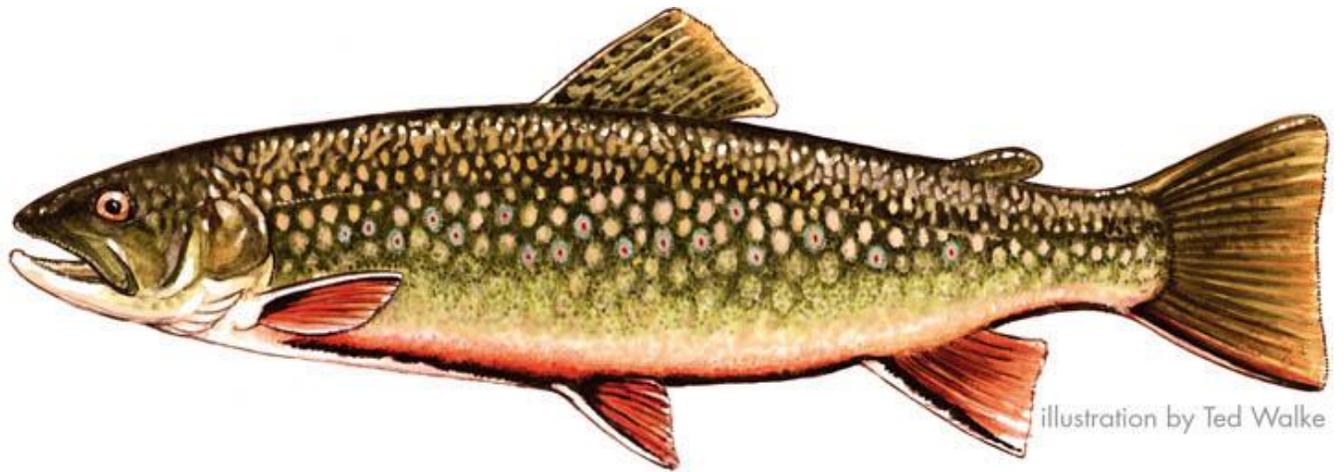
Take a look at the pictures below. Cut the pictures apart and then put them into three groups. Be ready to tell your teacher your reasons for grouping them this way. You may only have three groups when you are finished.



Animal Classification Discussion Pictures – Teacher Cards







Animal Classification - Student Cards



