

# Classifying Animals

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| <b>Strand</b>      | Life Processes   |
| <b>Topic</b>       | Investigating characteristics and classification of animals  |
| <b>Primary SOL</b> | 1.5 The student will investigate and understand that animals, including humans, have basic needs and certain distinguishing characteristics. Key concepts include<br>b) animals, including humans, have many different physical characteristics;<br>c) animals can be classified according to a variety of characteristics.  |
| <b>Related SOL</b> | 1.1 The student will demonstrate an understanding of scientific reasoning, logic, and the nature of science by planning and conducting investigations in which<br>c) objects or events are classified and arranged according to characteristics or properties;<br>d) simple tools are used to enhance observations;<br>f) inferences are made and conclusions are drawn about familiar objects and events;<br>i) observations and data are recorded, analyzed, and communicated orally and with simple graphs, pictures, written statements, and numbers;<br>j) simple investigations and experiments are conducted to answer questions. |

## Background Information

Animals can be classified according to different physical characteristics, such as body covering (e.g., hair, fur, feathers, scales, shells), body shape (e.g., two main features, three main features), appendages (e.g., arms, legs, wings, fins, tails), and method of movement (e.g., walking, crawling, flying, swimming). They can also be classified according to whether they live on water or land (habitat) and whether they are wild or domestic.

## Materials

- Several colorful, high interest photos of animals
- Six small, clear plastic tubs with covers (stackable preferred)
- Small items signifying specific animal families, i.e., mammals, birds, insects, fish, reptiles, and amphibians
- Animal Characteristics Cards (attached)
- Student hand-held magnifying lenses
- 11½ x 14 inch sheets of poster paper
- Markers
- Animal Classification Charts (attached) – six, one for each of the groups
- Scissors
- Paste
- Student science journals

## Vocabulary

*animal movement, body covering, body shape, domestic, habitat, physical characteristic, wild*

## Student/Teacher Actions (what students and teachers should be doing to facilitate learning)

### Introduction

1. Have students gather in a group meeting place, and show them several colorful, high interest photos of animals, such as those appearing on wildlife calendars and in wildlife magazines. Ask students to share what they know about the animals in the photos. See whether they know the names of the animals and can point out specific details of each. Have students note where each animal lives (habitat), what the visible parts of its body look like, and whether it is wild or domestic (one you would have as a pet).
2. Tell students the information they are sharing about the animals is called “animal characteristics” and that they will learn more about animals and their characteristics by doing a group activity.

### Procedure

Note: The object of this lesson is not for students to learn the animal families, but to help them identify distinguishing characteristics of each family. Prior to the lesson, place in each of six plastic tubs items that signify or represent one specific animal family. For example, when making the mammal collection, include items such as a sample of fur, a play milk bottle, a dog or cat collar, a small mammal figure (e.g., dog, cat), and several photos of wild and domestic mammals—enough items to highlight the characteristics of the specific animal family.

1. Divide the class into six small groups, and give each group one collection of items to explore. Tell students that we will explore the question, “What characteristics do animals in a certain group have in common?” Have student groups move to separate areas of the room where they can examine their collections undisturbed.
2. As students in each group explore their collections, encourage use of magnifying lenses and group discussion. Listen to discussions, and lead students to discuss body coverings, body shapes, methods of movement, habitat, and wild vs. domestic characteristics.
3. Give each group a sheet of poster paper and a set of markers for making a “Findings Poster.” On this poster, direct students to record the characteristics of the animals indicated by the items in their collection. They may use words or pictures, but each group should decide collectively what to record on their poster. Assist groups as needed, making sure each group records appropriate observations. Encourage groups to include body coverings, body shapes, types of appendages, how the animals move, and in what habitat this group of animals may live, and whether this group of animals is usually wild or domestic.
4. Have each group share their findings with the class, using their poster. After each presentation, write a heading on the poster—either “Mammals,” “Birds,” “Insects,” “Fish,” “Reptiles,” or “Amphibians.” (Note: While students are not assessed on these classifications at this grade, this will help them in later grades.) Allow students to use these posters when completing the suggested assessment questions below.

## Assessment

- **Questions**
  - What characteristics do the animals in my group’s collection have in common? (Hint: Refer to the “Findings Poster” your group made.)
  - How did other student groups classify and sort the animal-related items in their collections?
  - How can the characteristics of each animal tell you where the animal might live—that is, what its habitat is?
  - How can the characteristics of each animal tell you whether it might be wild or domestic?
- **Journal/Writing Prompts**
  - Think of one or more items from your collection that you found very interesting. Draw this item in your science journal, and tell what you liked about it.
  - Create an “I Spy” page in your science journal of the items found in your collection. Draw most or all of the items. Then, write a clue that tells about each item.
- **Other**
  - Distribute scissors, paste, and copies of the attached Animal Characteristic Cards and Animal Classification Charts. Have students cut apart the cards and sort them by characteristics. Then, have the students use the cards to complete the charts. You may want to allow students to color the animals before cutting them out.
  - Create the animal-family collections of items as a class project. Assign students to specific animal-family groups, or allow them to choose. Encourage the use of the Internet and book resources to help each student group fill their tub with items.
  - Remove various items from each collection, and have students determine from which collection the item was removed and why they would return the item to that collection.

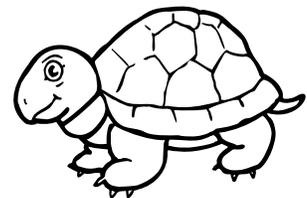
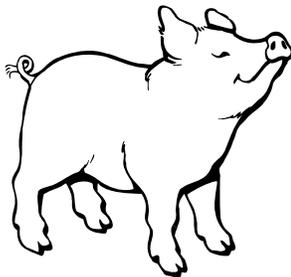
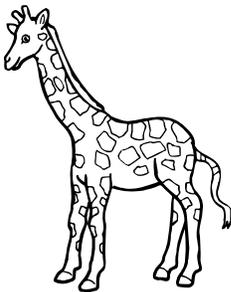
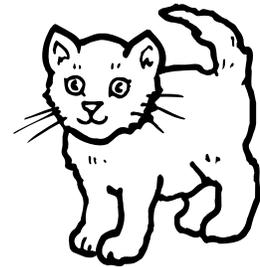
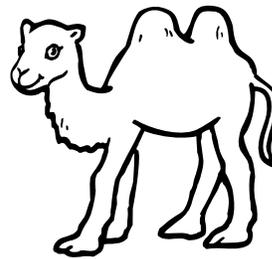
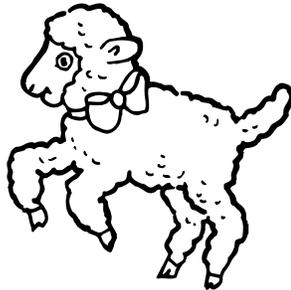
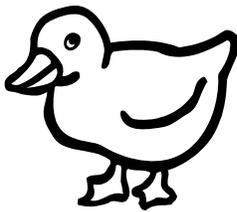
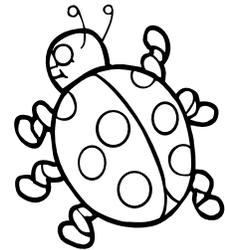
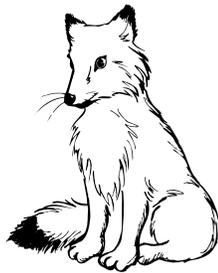
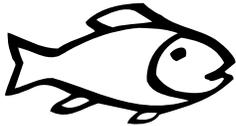
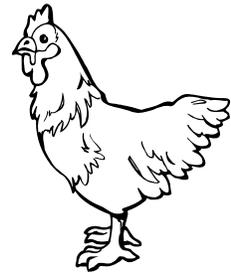
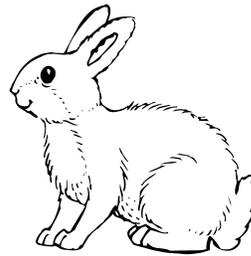
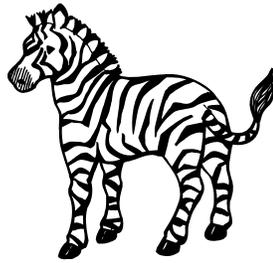
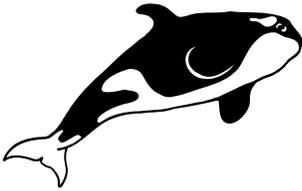
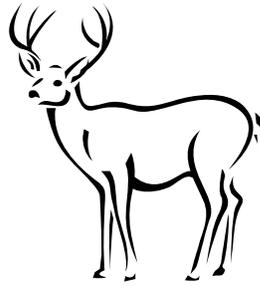
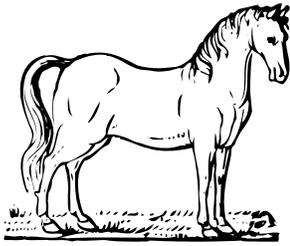
## Extensions and Connections (for all students)

- Have students create a mural for one or more of the collections, and allow them to add 3-D animals to the mural. Have them explain what items influenced the various parts of the mural.
- Take the class on a walk around the school grounds to search for clues of animals that may live there. Remind students that some animals may be so small they may be at our feet, so don’t forget to look up, down, around, beside, and under. Discuss animals they see.
- Tell students that people are animals and that like all animals, we live in different habitats that affect the way we live. “What are some characteristics of people who live in warm areas? Hot areas? Dry areas? Wet areas?” (Correlates to History and Social Science SOL 1.6)

## Strategies for Differentiation

- Play a game of hide and seek with items from the collections. Give students a clue item, and have them search the room or play area for one that may match it to return to the proper collection.
- Play a game of animal charades. Use items found in the collections for students to role-play or act out for the class to guess.

# Animal Characteristics Cards



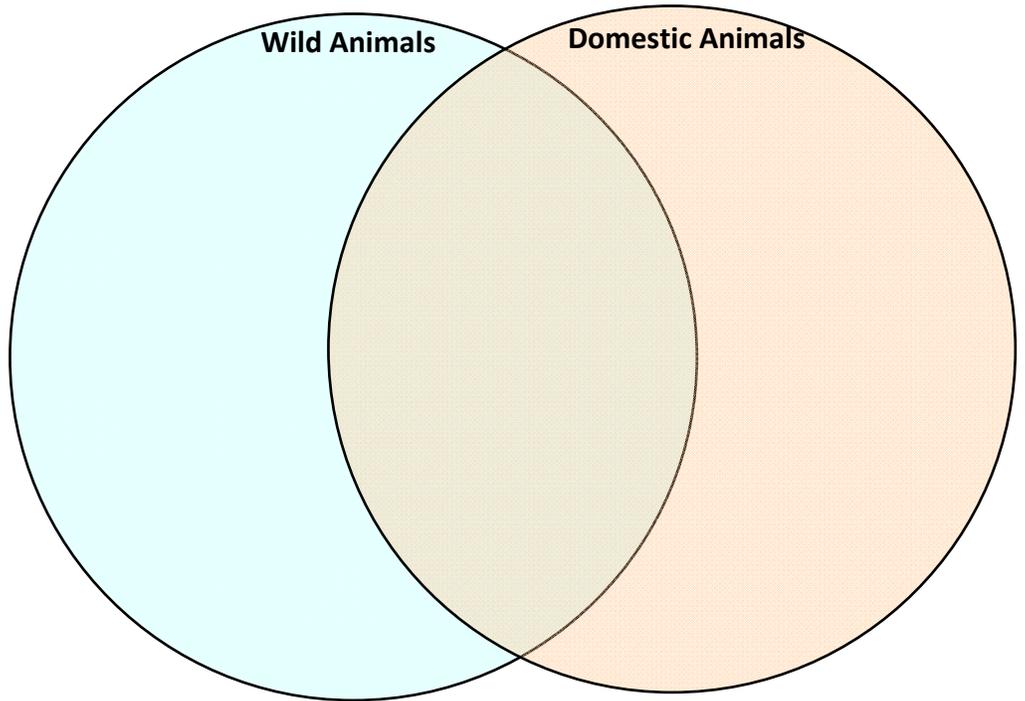
# Animal Classification Charts

Name: \_\_\_\_\_ Date: \_\_\_\_\_

1. Cut out and paste an animal that has each characteristic listed in this chart.

| Hair or Fur | Feathers | Scales | Shells |
|-------------|----------|--------|--------|
|             |          |        |        |

2. Cut out and paste two wild and two domestic animals in this chart. If any animal could be both wild and domestic, put it in the middle where the circles overlap each other.



3. Cut out and paste in the chart below two animals that live on land and two animals that live in water.

| Land | Land | Water | Water |
|------|------|-------|-------|
|      |      |       |       |