

Lesson: Zoo Animal Classification



Objective:

Students will practice observation skills and animal classification by visiting a zoo and categorizing animals into different groups based on their characteristics. They will compare their findings, reflect on prior knowledge, and incorporate new observations to justify their classification choices.

Competencies Covered:

- Demonstrate curiosity about the natural world
- Identify questions about familiar objects and events that can be investigated scientifically
- Make predictions based on prior knowledge
- Collect simple data
- Sort and classify data and information using drawings or provided tables
- Compare results with predictions, suggesting possible reasons for findings
- Make simple inferences based on their results and prior knowledge
- Demonstrate an understanding and appreciation of evidence
- Transfer and apply learning to new situations
- Express and reflect on personal or shared experiences of place

Materials:

- Worksheets (one per student) with animal names and observation sections
- Writing materials (pencils, pens)
- Zoo entry tickets (arrange with the zoo and obtain permission as needed)

Background Information:

What is Animal Classification?

Animal classification is the process of organizing and grouping animals based on their similarities and differences. Scientists use this system to categorize and study the vast diversity of animals found on Earth. Animals are classified into different groups called taxa, which include categories like kingdom, phylum, class, order, family, genus, and species.

The Five Main Groups of Vertebrate Animals:

There are two main groups of animals: vertebrates and invertebrates. Focus on vertebrates for grade 3 science. Vertebrates are animals with a backbone. The five main groups of vertebrates are:

1. Mammals: Animals that have hair or fur, are warm-blooded, give birth to live young, and produce milk to feed their babies.
2. Birds: Animals with feathers, beaks, and lay hard-shelled eggs.
3. Fish: Animals that live in water, have gills to breathe, and most have scales on their bodies.
4. Reptiles: Animals with dry, scaly skin and lay leathery eggs.
5. Amphibians: Animals that live both in water and on land, usually start their lives as aquatic larvae with gills, and then undergo metamorphosis to become adults with lungs.

Characteristics for Classification:

Animal classification is based on various characteristics, including physical features, habitat, diet, and reproductive methods. These characteristics help scientists determine which group an animal belongs to. For example, having feathers would classify an animal as a bird, while having scales and living in water would classify an animal as a fish.

Using Dichotomous Keys:

Scientists often use dichotomous keys to help identify and classify animals. These keys are like step-by-step guides that lead to the correct classification based on a series of choices. Students may not use dichotomous keys directly in grade 3, but they can be introduced to the concept.

Importance of Animal Classification:

Animal classification is crucial for understanding the relationships between different species, studying biodiversity, and identifying unique characteristics within each group. It helps scientists communicate and organize information about animals effectively.

Procedure:

Introduction (5 minutes):

- Begin the lesson by discussing the concept of animal classification and the different categories (mammal, reptile, amphibian, bird).
- Engage students in a brief conversation about their prior knowledge of animal classification and encourage them to share examples.

Zoo Visit Preparation (5 minutes):

- Distribute worksheets to each student as they arrive at the zoo.

- Explain that they will be observing various animals during their visit and categorizing them based on their observations.

Group Formation and Observation (30-45 minutes):

- Divide the students into groups of 4-5, ensuring that each group has an adult supervisor.
- Instruct the groups to wander around the zoo, finding the animals listed on their worksheets and filling out the observation sections for each animal.
- Encourage students to be attentive and take note of relevant characteristics such as body covering, habitat, behavior, and adaptations.

Animal Categorization and Justification (20 minutes):

- After filling out the worksheet, instruct students to discuss within their groups and decide which animal category (mammal, reptile, amphibian, bird) each observed animal belongs to.
- Encourage students to refer to their prior knowledge as well as the new information they gathered through observation.

Comparison and Discussion (10 minutes):

- Bring the groups together to share and compare their classification choices.
- Facilitate a class discussion by asking questions such as:
 - Did you both agree on what type of animal it was?
 - What similarities or differences did you notice in your observations and classifications?
 - Did any observations challenge or change your initial classification decisions?

Reflection and Conclusion (5 minutes):

- Conclude the activity by having students reflect on what they learned about animal classification during the zoo visit.
- Encourage them to share any surprises, new insights, or connections they made.
- Highlight the importance of careful observation and using both prior knowledge and new information to make informed decisions.

Extension:

- Students can create posters or presentations showcasing their findings and the classification process.

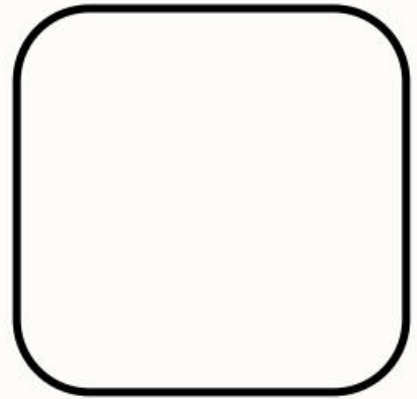
- Encourage students to research and learn more about specific animals they observed at the zoo and share their newfound knowledge with the class.
- Invite a zoo educator or animal expert to visit the classroom and discuss animal classification and adaptations in more depth.

Note: Ensure to make necessary arrangements with the zoo and provide appropriate supervision to ensure the safety and smooth running of the activity.

ANIMAL CLASSIFICATION

ANIMAL I CHOSE IS CALLED A:

HOW MY ANIMAL LOOKS:



DICHOTOMOUS KEY:

1. DOES THIS ANIMAL LAY EGGS?:

YES NO (If no, skip to Q4)

2. DOES THIS ANIMAL HAVE SCALES?:

YES NO (If no, skip to Q5)

3. DOES THIS ANIMAL BREATHE AIR?:

YES NO

Then your animal should be a reptile! Then your animal should be a fish!

4. DOES THIS ANIMAL HAVE FUR?:

YES NO

Then your animal should be a mammal! Maybe you should look at the animal again!

5. DOES THE ANIMAL HAVE FEATHERS?:

YES NO

Then your animal should be a bird! Move to Question 6!

6. IS THE ANIMAL'S SKIN WET OR SLIMY?:

YES NO

Then your animal should be an amphibian! Maybe you should look at the animal again!

MY ANIMAL IS A:

WHILE OBSERVING MY ANIMAL, I LEARNED:

MY CLASSMATE FOUND THIS ANIMAL WAS A:

THEY THOUGHT THIS BECAUSE:

