
TEKS K.10 Organisms and environments. The student knows that organisms resemble their parents, and have structures and processes that help them survive within their environments. The student is expected to:

(A) sort plants and animals into groups based on physical characteristics such as color, size, body covering, or leaf shape.

(B) identify parts of plants such as roots, stem, and leaves; and parts of animals such as head, eyes, and limbs.

Background Knowledge

Living organisms differ from nonliving things because living organisms grow, reproduce, and have basic needs. Animals and plants are living things and can be sorted by physical characteristics. These physical characteristics help them survive in their environment. For example, Polar bears have thick, white fur to keep them warm, and allow them to blend in with the snow. Fish have fins, tails, and scales that allow them to survive and move in the water. Cactus stems are puffy and store water to survive in the dry hot climate of a desert. They have narrow leaves called spines. Elephant Ear plants have big, broad leaves to soak up the sunlight in the rain forest.

Animal parts include a head, eyes, body covering, and arms, and legs called limbs.

Plant parts include leaves, roots, and a stem. Some plants have flowers.

Plants and animals can be grouped by color, size, body covering, or leaf shape.

Essential Questions

What parts of animals are important?
(Head, limbs, eyes, and body covering)

What parts of plants are important?
(Roots, stem, leaves, flowers, seeds)

What physical characteristics help us sort plants?
(Color, size, shape, texture)

What physical characteristics help us sort animals?
(Body covering, color, size, shape)

My New Animal

Objectives:

- To develop children's creative thinking.
- To help children recognize different limbs of different animals.
- To teach through art.

Materials:

Cardboard paper
Thin paper to use for body coverings
Paints
Crayons
Scissors
Chart of different animals around the world

How to Conduct:

Provide oval-shaped cutouts that will be used as an animal's body. Provide thin sheets of paper on which different animal body covering textures are printed, rubbed, or painted. Provide cutouts of forelegs, hind legs, frog legs, tails, fins, and wings. Hold up the cardboard body.

Ask:

- What is this animal missing? (Limbs)
- Do you see anything here that we can use for limbs? (Use this moment to share that tails, fins, and wings are acceptable as limbs, as well as various legs.)

Tell students that they can make it into an animal by adding body covering and limbs. Once they are done, discuss what limbs they used, and what body coverings they used. Show them a chart of different animals and discuss the following:

- What is the name of your animal?
- How does it move and where does it live?
- Look at the chart. Does your animal exist in the world?

Discuss how their animals can be sorted into groups, and let the students move into groups based on different characteristics, such as color, body coverings, or types of limbs.

Move Like An Animal

Objectives:

- To demonstrate how different animal groups move.
- To understand how their limbs play a part in motion.

Materials:

Videos and pictures of animals in motion.

How to Conduct:

- A. Show students still and motion images of these animals: frog, dog, fish, snake, bird, and alligator.
- B. Divide the class into 6 groups. Tell the students this will be a guessing game. Place folded pictures of these animals in a box, and ask each group to reach for a picture without looking. Now each group must move like the animal picked from the box, and the other groups will guess which animal is represented.

Paint Plant Parts

Objectives:

- To teach students the different parts of plants.
- To develop attention-to-detail structures of plants.
- To bring art into biology.

Materials:

3 types of leaves
3 types of flowers
A root
A stem
Paints
Heavy white paper

How to Conduct:

- A. Take an observation walk on campus to observe the different plants at school. Talk about the different parts of plants. Tree roots can sometimes be observed running along the ground. Pull up a weed, such as a dandelion, to observe the roots. Make sure students wash their hands after handling plants or soil. Return to the classroom. (A sweet potato is easy to root in a jar of water. Place the pointed end in the jar so the bottom tip of the potato is submerged. Students will be able to see the roots, the stems, and leaves, but no flowers.)
- Ask:
- Which parts did all the plants have? (Leaf, stem, roots, and some had flowers)
- B. Tell students they will be artists today, using paints to make complete plant paintings. Each plant will need a different color for the root, stem, leaf, and flower. Students will dip plant parts in paint and place each part down on the white paper, pressing down so the impression of the part is made on the paper in the proper place to construct a plant.
- Discuss:
- The different shapes of leaves, stems, and roots.
 - The veins in the leaves.
 - The number of petals on the flowers.
- Ask:
- What is something you noticed about plants today that you have never noticed before?
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