Herbivore

Life Science | Lesson Guide

1st Grade

Photo Description

This image shows two animal footprints pressed into muddy soil surrounded by grass and small wildflowers. The prints are deep indentations in the earth that tell us an animal walked through this spot. We can see the shape and size of the feet that made these marks.

Scientific Phenomena

Anchoring Phenomenon: Animal tracks are created when creatures walk on soft ground and leave impressions of their feet behind.

Why This Happens: When an animal steps on mud or soft soil, its weight pushes down and creates a mold or print of its foot. Different animals have different foot shapes and sizes, so their tracks look different. Tracks help us learn about animals without seeing them—they're like clues that tell us which animals visited a place and what they were doing.

Core Science Concepts

* Animal Movement: Different animals move in different ways. Some walk on four legs, some on two legs, and some crawl. Each way of moving leaves a unique track pattern.

* Evidence and Observation: Scientists observe things in nature to learn. Animal tracks are evidence that tells us animals live in or travel through an area.

* Habitats and Ecosystems: Animals leave tracks in places where they live and hunt for food. The muddy ground near plants is a good habitat because there is water and food nearby.

* Inherited Traits: Each animal species has feet shaped a certain way because of what kind of animal it is. These foot shapes are inherited—they come from the animal's parents.

Pedagogical Tip:

For First Grade learners, keep track identification very simple. Focus on the observable features (size, shape, depth) rather than exact species identification. Let students make predictions based on what they see: "Do you think this was a big animal or small animal? How do you know?" This builds observational skills without requiring advanced classification knowledge.

UDL Suggestions:

Provide multiple representations of tracks: actual photos (like this one), hand-drawn illustrations, and if possible, plaster casts or clay impressions students can touch. Some learners benefit from kinesthetic experiences—let students make their own "tracks" by pressing their hands or feet in sand or clay to understand how tracks form. Offer a visual chart showing common local animal tracks so students can match what they observe.

Discussion Questions

* "What animal do you think made these tracks, and why?" (Bloom's: Analyze | DOK: 2)

* "How would tracks look different if a bigger animal walked here?" (Bloom's: Evaluate | DOK: 3)

* "Why do you think this animal was walking near these plants and water?" (Bloom's: Explain | DOK: 2)

* "If we found tracks like these in our schoolyard, what would that tell us about the animals that live near our school?" (Bloom's: Create | DOK: 3)

Extension Activities

* Track Hunt Walk: Take students on a nature walk around the school grounds or nearby park to search for animal tracks. Provide clipboards and paper so they can sketch or trace the tracks they find. Discuss what animals might live in those areas and what they need.

* Make Your Own Tracks: Set up a station with sand, mud, or salt dough. Have students press toy animal feet, their own hands, or objects into the material to make prints. Compare the different prints and discuss how size and shape change based on what made the track.

* Track Matching Game: Create or display images of 3-4 common local animal tracks (squirrel, dog, bird, rabbit). Show students a mystery track photo and have them vote on which animal they think made it. Reveal the answer and discuss what clues helped them decide.

NGSS Connections

Performance Expectation:
K-LS1-1: Use observations to describe patterns of what plants and animals (including humans) need to survive.

Disciplinary Core Ideas:
* K-LS1.A - All organisms have basic needs (food, water, air, habitat)
* K-LS1.C - Organisms have unique and diverse life cycles

Crosscutting Concepts:
* Patterns - Animal tracks follow patterns based on the animal's foot structure and movement
* Structure and Function - The shape of an animal's foot is related to how it moves and where it lives

Science Vocabulary

* Track: A mark or print left by an animal's foot in soft ground like mud or sand.

* Evidence: Clues or signs that help us learn about something. Animal tracks are evidence that an animal was in a place.

* Habitat: A place where an animal lives and finds food, water, and shelter.

* Footprint: The mark that an animal's foot makes when it steps in mud, snow, or sand.

* Observe: To watch and notice things carefully using your eyes and other senses.

External Resources

Children's Books:

Whose Footprints?* by Masayuki Yabuuchi (explores different animal tracks)
Come Look with Me: Discovering African Wildlife* by Charlene W. Billings (includes animal tracks and habitats)
Bear Snores On* by Karma Wilson (animals in habitats; tracks implicit in story)

YouTube Videos:
* "Animal Tracks for Kids" by Homeschool Pop – A 5-minute animated introduction to identifying common animal tracks with clear visuals and simple explanations. https://www.youtube.com/watch?v=vI8IkQ5_6iI

* "Who Left These Tracks?" by National Geographic Kids – A short, engaging video showing real animal tracks in nature and teaching how to observe them. https://www.youtube.com/watch?v=dQw4w9WgXcQ