



NYSDEC Environmental Education

Title: Animal Tracks Program

Grade Level: Lower Elementary (K to 2nd Grade)
Note: Works best with two instructors

Duration: 45 minutes to one hour

Overview: Children will explore animal tracks and create their own story in words and drawings

Goal: Using shapes, sizes and patterns, students will use tracks to determine what animal visited an area

Subject

Areas: Science, Math, English Language Arts

Standards: English Language Arts Standard 1
Math, Science and Technology Standard 3 and 4

Key Themes: Animals leave behind footprints (tracks) and other signs when getting food, water and shelter from their habitat

Vocabulary:

alternating	gallop	waddle
bound	length	walk
claws	pattern	width
den	scat	wild
footprint	size	
front	snow	
hind feet	toe	
hoof	track	
hop	trail	

Materials:

- *Footprints in the Snow* by Cynthia Benjamin
- Laminated animal and track pictures
- Dry erase board and markers
- Yarn of various lengths
- Rubber scat, rubber animal tracks, other animal signs (e.g. feathers)
- Plaster track impression
- unrolled cotton balls
- Track stamps/stamp pads
- Chart paper
- Markers

- Roll of butcher paper (about 1 foot per student)
- Construction paper or card stock (one piece per child)
- Post-activity materials: DEC *Winter Tracks* brochures and resource list
- Let the teacher know students will need glue sticks and crayons at their desks.

Activity:

What is a nature preserve?

A nature preserve is a home for plants and animals that people visit to enjoy the animals and to learn more about them.

Has anyone ever been to a nature preserve?

Today we are visiting a special place called _____ (e.g. Reinstein Woods Nature Preserve). I'd like to talk to you about some of the animals that live here where you live or go to school.

Does anyone have a pet? How does it get food? Water? What about in wintertime- how does it stay warm? You take care of it and provide what it needs to live. Some animals have to find food on their own. These animals are called wild animals. (*write WILD on the board*)

When you look outside the windows of your school (or home), what wild animals might you see? Have you ever played outside in the snow in winter? If you were walking through the snow and looked behind you, what would you see? Footprints. Animals that walk through snow also leave behind footprints called tracks.

(*Or, has anyone been to the beach this summer? When you walked in the sand, did you leave behind footprints? So do animals when they walk in sand, mud or snow.*)

I'd like to read you a story called "Footprints in the Snow."

After reading the last page, ask, "How many legs did the person in the story use to walk home? How many legs did most of the animals in the story use?"

Most of the animals used four legs, but they walked in different ways, which leave behind different kinds of footprints or "tracks."

Let's look at the kinds of tracks they make. (*Use large animal photos, one at a time, and discuss the four major kinds of track patterns*):

- 1) Hoppers: Squirrels: 5 toes on strong back feet, four toes on front feet.
Big back feet land in front of small front feet.
Track looks like this (*draw on board*)
If you have lots of room, you can have all the kids try moving like a squirrel. If you don't have a lot of room, demonstrate how to move and then have one student try it.
Squirrels, mice and rabbits are hoppers.
- 2) Walkers: Deer. As we saw in the book, they stay outside all winter, so they have to walk through deep snow. Skinny legs help them walk in the deep snow. Have you ever walked in someone else's footprints in the snow? Was it easier than making your own? Deer do that with their four feet! *Draw track. Demonstrate movement.* Fox are also walkers.
- 3) Bounders: Skunk. Front feet next to each other and back feet next to each other, then leap so back feet fall in same spot. *Draw track. Demonstrate movement.*

- 4) Waddlers: Raccoon. Put hind foot next to front foot and waddle along. *Draw track. Demonstrate movement.* Beaver are waddlers too.

(If you need to regroup: Some animals don't go out in the snow. They sleep all winter: e.g. groundhogs. Bear and chipmunks mostly sleep. Let's try sleeping like a bear.)

Anyone have a dog? When you take your dog on a walk, does it stare at the clouds? No, it sniffs the ground. Why? It can smell other animals that have been there. It is following a scent trail.

When we go outside and see animal tracks, sometimes we can follow them to see where the animal went.

We're going to go on a pretend field trip to a forest to follow some animal tracks.

Close your eyes and put your head down on your desk (or lay on the floor). The classroom is now being transformed into a forest in wintertime. It's a cold day, but sunny out- feel the warm sun on your head. All around you are tall trees. As you walk through the snow, you can hear the snow crunching underfoot and smell fresh pine trees, like a Christmas tree. You hear a bird call. Feel a slight breeze on your face. You hear some rustling in the woods. Animals are moving through the woods. They are making a trail with their feet, leaving behind footprints, or tracks.

When you open your eyes, the tracks of animals will have been left behind.

(While the "field trip" is happening, or before that if possible, lay out yarn animal tracks around the room. Put the track picture face up at the start of the trail, the animal picture face down at the end of the yarn, and animal signs on top of the yarn along the way.)

Open your eyes.

Around the room there are some yarn trails. At the start of each yarn is an animal's track. Follow the yarn trail until you find what animal made the trail. Bring back your animal and its track and we'll talk about them. *(Have kids work in pairs or groups of 3)*

Some of the paths have other signs left behind by the animal - bring that back too.

- 1) Turkey: feathers, scat
- 2) Squirrel: scat, chewed pine cone
- 3) Deer: track and scat
- 4) Fox: scat, cross bunny path
- 5) Rabbit-scat
- 6) Beaver: feet, chewed stick
- 7) Raccoon- scat

Talk about the results: show a plaster imprint track, then explain how the rubber footprint is made from it. Talk about scat as a sign, and other signs left behind. Talk about how shape and size of tracks, in addition to the pattern, can help you decide which animal left the footprint. (e.g. deer vs. fox, squirrel vs. rabbit)

Sometimes tracks can tell you a story. I want to tell you a track story, and then you are going to get to draw and write your own winter track story.

Draw a track story on large paper, and use animal tracks. See p. 246 in "Small Wonders" (by Linda Garret and Hannah Thomas) for a sample story.

Activity Extensions:

(For a large class, you can split it into two groups. For a small group, you can just do the first activity with the whole group)

A. At their desks, students will:

- 1) Draw scene (give them suggestions, like their own back yard, school, park, etc.) *(be sure to explain that they don't have to draw on animal tracks, they'll get to add them with stamps)*
- 2) Glue on snow (an unrolled cotton ball)
- 3) Come to stamp area and stamp animal tracks on to your picture
- 4) Write your name on the back, and write the story of your picture on a separate piece of paper *(this can be done after the program).*

B. Roll out the craft paper in an open area on the floor. Students will:

- 1) Pair up.
- 2) One person stands on the craft paper. The other person traces a line around their feet to make foot prints.
- 3) Measure your footprints against other animal tracks. Is it as big as a bear track? For older students: How many squirrel or rabbit tracks long is your foot? How wide? *(Show them how to fill out measuring sheet) (When appropriate with older students, rulers could be used)*
Note: Write the spelling for animal names and the words "longer" and "shorter" on the board for the kids to see.

If doing both activities, have the groups switch after about 15 minutes and do the other activity.

Wrap Up: Finish by suggesting they look for animal tracks on their next walk outside and then read the *Tracks! Tracks!* poem (have it displayed on a piece of chart paper).

Track Resources

We encourage you to take your students on a walk around your school yard, neighborhood park, or other outdoor area to look for animal tracks and signs. Before doing so, you could have the class watch a short video showing a winter walk looking for tracks:

<http://www.dec.ny.gov/dectv/dectv116.html>

Your local library should have field guides available on animal tracks. For a variety of animal track information, you can also visit the website:

<http://www.bear-tracker.com/>

Books:

Animals in Winter by Henrietta Bancroft and Richard G. Van Gelder

Big Tracks, Little Tracks: Following Animal Prints by Millicent E. Selsam

Footprints in the Sand by Cynthia Benjamin

Footprints in the Snow by Cynthia Benjamin

In the Snow: Who's Been Here? By Lindsay Barrett George

Tracks, Scats and Signs by Leslie Dendy

Wild Tracks: A Guide to Nature's Footprints by Jim Arnosky

Squirrel Tracks

Poem by Marie Cecchini

Chitter, chatter,
Scold, scold
Gray squirrels scoot,
Through winter's cold.
Over ice,
Over snow,
Leaving footprints
As they go.

Tracks, Tracks!

Modified from Growing Up WILD:
(To the tune of "Soup, Soup, We all Love Soup")

Tracks! Tracks!
We all make tracks.
Big feet or small paws
With or without claws

Tracks! Tracks!
We all make tracks.
A footprint left in mud or snow
A clue that tells which way to go.

Tracks! Tracks!
We all make tracks.
We'll follow a track and see who
Was here before me and you!