

# Animal Signs

## ***Essential Guiding Question: How can I find animal signs, and what do they tell us about the environment?***

This lesson will cover types of animal signs, how to find them, and what to infer about an area from these findings.

First, students will brainstorm a few different kinds of animal signs. Allow them to tell personal stories about what they've found before.

Next, outline specific types of animal signs on a white board or paper and explain each.

The bulk of this lesson lies with a hike to explore a few animal signs! Be sure to point out "people" signs as well, as these can lead to discussion points down the line. A few other extensions for this hike are also outlined in this lesson plan.

To conclude, facilitate a discussion about the ecosystem and overall health of the surrounding environment, given the signs that were found by the group.

**Total Estimated time: 1—1.5 hours**

**Ages: 5-18, depending on lesson extensions**

### **Materials:**

- Whiteboard or paper
- Tracks, scat, bird, feather field guides
- Binoculars or magnifying glasses, optional
- Repli-scat and Repli-tracks available for loan through PCCD\*
- Pictures of a handful of animals\*

\* optional, further details in extensions portion of this lesson plan

### ***Learning Objectives***

- 1) Students will learn the main types of animal signs and where to find them, and how to identify them
- 2) Students will analyze the overall findings in an area to conclude it's diversity
- 3) Students will create their own tracks guide or log as they find new or unfamiliar animals signs

### **Set Up:**

- 1) Preferably outside, allow students to explore the wildlife trunk. Lay the items out on a table or blanket to keep them clean. You might try challenging them to identify as many of the items as possible, or guess their size or preferred habitats.
- 2) Have ready a piece of paper or whiteboard for the brainstorming session.
- 3) If choosing to supplement with a few extensions, place your props on the trail prior to the hike, or, carry them with you in a backpack

## **Intro—What are animal signs? (10-15 minutes)**

Open this lesson by allowing students to explore the Wildlife Trunk (optional), to discuss furs, tracks, scat, skulls, and more. Then, brainstorm a few major types of animal signs. Have them write these down individually, or do it as a group on a white board or paper. The main types of animal signs are:

- 1) **Tracks and Trails**—certain identifiers tell us what the track could belong to, for example, cats leave no claw marks, but dogs almost always do. Trails are a collection of tracks or a noticeable path in an area.
- 2) **Homes / Nests / Food Caches**. Think of rodent homes, bird nests, dens, or food storage areas.
- 3) **Eat Marks**. Rodents leave teeth marks on many items, and squirrels especially are known to leave a pile of pinecone debris where they've been eating / living called "middens."
- 4) **Body Parts** (fur, feathers, skins, teeth, bones, blood, etc.)
- 5) **Territorial marks** (buck rubs, fox urine, etc.)
- 6) **Scat and Urine** (poop and pee)

At the end of this brainstorm session, mention to students that we must find as many different kinds of signs as possible to know what's living in the area and how diverse it is.

Next, introduce tracks guides or other tools available for the hike. Wildlife, scat, and track ID guides are very useful. Binoculars or magnifying glasses are excellent tools as well.



## Animal Signs Hike (30-60 minutes)

Using your ID guides, take note of all animal signs. Older students should also take note of the weather, forest type, nearby vegetation, and proximity to man-made structures or water sources. Any age should take note of “people signs” as well during the hike.

Students should record their findings in the field in a notebook, nature journal, on a group white board, or by taking photos.



With luck, quiet footsteps, and patience, you might find wildlife, like this stream-side Mink having a goose dinner!

## Extensions—Camouflage, Predator/Prey, Transects Practice

If time allows, the following extensions are highly recommended!

- 1) Camouflage “Matching” Game—choose your hiking trail, and plan to stop at a collection of certain vegetation changes to talk about camouflage. Explain what it is, and at each stop display an array of wildlife photos. Have the students guess observe the site carefully, then each of the photos, in order to deduce which of the animals might use their camo in the area where you stopped. (example: sunny day where spots of sunlight poke through trees = white tailed deer fawn) (20 minutes)
- 2) Predator/Prey—Birds and Worms Game, this also plays into the camouflage theme. Using pipe cleaners colored yellow, red, white, black, brown, and blue, have the students pretend to be birds looking for worms. They can pick up as many pipe cleaners as they can, and then compare what they found. Consider making a quick color-coded bar graph of the results The brightly colored ones with little to no camouflage will be “eaten” first. Best for 4-8 year olds. (10-15 minutes)
- 3) Transects—introduce a real-life field assessment technique to older students. Field biologists use transects to collect objective data. This involves walking in a straight line for twenty feet in distance (in this case, one perpendicular to your hiking trail) and taking note of each animal sign in the line only. The transects can be mapped out to display the exact area assessed. (20 minutes)

## Conclusion (10-15 minutes)

The conclusion of any lesson is crucial to an educator’s success. This short time facilitates synthesis of the ideas you worked to convey in the last hour or more. Refer to the **Teaching Toolkit Assessment Guide** on the PCCD website for ideas on how to create your successful conclusion!

Younger crowds should be encouraged to be expressive. This could include making a nature journal entry about the favorite and least favorite part of the hike, best animal sign that was found, how healthy they think the area is, and why.

Older students should be encouraged to brainstorm other ways to assess an area’s diversity over time (game camera.) Older students can also be encouraged to explore ways to increase diversity near the area they explored, if applicable. Bird nesting boxes, bat boxes, certain plants, and other wildlife-friendly practices can be discussed, and if near their family’s property, implemented!

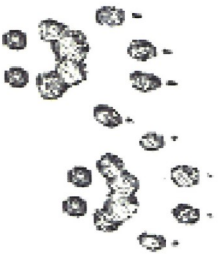


Older students should almost always be challenged to find solutions to environmental issues. Some solutions or tools to implement can be quite simple, like this dollar store solitary bee nesting box, pictured above! Many different structures like these offer important shelter and habitat supplements to at-risk wildlife, such as bats, birds, fish, and more!

## Common Mammal Tracks of Potter County



Back Feet

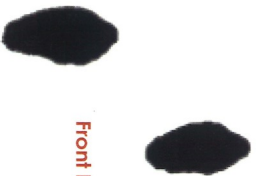


Front Feet

Gray Squirrel



Back Feet



Front Feet

Cottontail Rabbit

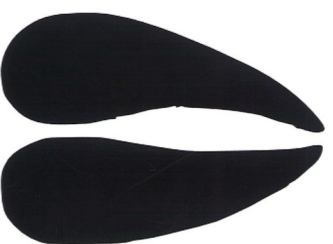


Front Feet



Back Feet

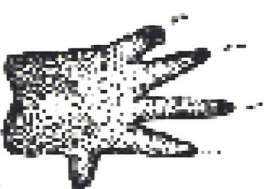
Opossum



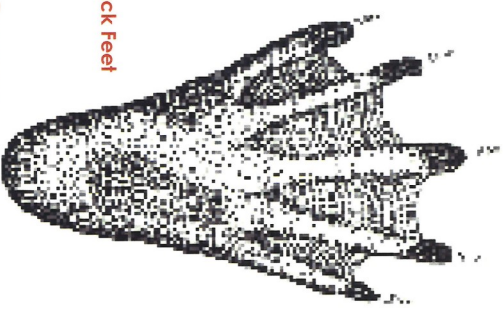
White-tailed Deer



Bobcat



Front Feet



Back Feet

American Beaver



Back Feet



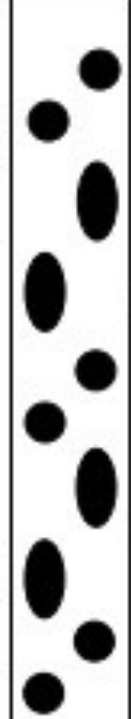




Front Feet

Gray Fox



Certain animals leave certain patterns of tracks - called **TRAILS**

Gait	Speed/Pattern	Animal	Illustration
Waddling	Slowest, shuffle	Raccoon, skunk, opossum	
Walking (2 legs)	Slow, alternating	Goose, person	
Walking (4 legs)	Slow, alternating and diagonal	Cat, coyote, fox, deer	
Galloping (4 legs)	Faster, hind feet land in front of front feet	Dog, coyote	
Hopping	Hind feet land in front of front feet	Rodent, rabbit, bird, squirrel	
Bounding	Tight clusters of prints, front prints directly behind back	Weasel, mink	