

Are You on the Right Track?

Essential Question:

How can we learn more about animal behavior?

At a Glance:

Learners will analyze scenarios that provide clues about animal behavior by analyzing animal signs. By looking at different animal tracks, learners will interpret the information they are given in order to determine what animals are present in the given areas that they learn about in each mystery.

Background:

Few tracks can be positively identified on the basis of a single print. Consider other clues like trail width, stride, trail pattern, type of habitat, geographical location, scat, or other signs left by the animal. Depending on the length, pattern and location that the tracks are observed, you can hypothesize different animals that may be present in the area that you are exploring.

Procedure:

1. Discussion: What are some clues that tell us which animals are on our site? Explain to the learners that they will be working through mini mysteries to discover which animals were involved.
2. Go through the mysteries with the learners and discuss their answers.
3. Have the learners design their own mysteries using the guides. They can draw or trace the footprints.
4. Next, learners swap their mysteries and try and to work them out.

ANSWER SHEET

Mystery 1: **Cat** (*Shape and size of track, location - urban setting*)

Raccoon (*Shape and size of track, location - urban setting*)

Mystery 2: **Moose** (*Shape and size of tracks, likely to be near lake away from biting insects, eaten aquatic plants*)

Eastern Cottontail Rabbit (*Shape and size of tracks, nibbled plant at 45° angle, small round scat*)

Mystery 3: **Unshod Horse** (*Shape and size of track*)

Fossilized Shark's tooth (*Shape and color of tooth*)

Background Information: Cumberland Island has wild horses and plenty of fossilized shark teeth on its trails.

Discussion/Assessment:

Have the learners discuss how they identified the animals in the scenarios.

What was true to life? What was not real in these simulations?

Have learners try to identify tracks at home or in a local setting.

Location: Indoors

Objectives: *Learners will*

- 1) analyze clues and use field guides to interpret animal signs and behavior.
- 2) observe differences between different animal tracks.

Skills: communication, observation, listening, analysis

Supplies:

- worksheets: *Are you on the Right Track?*, *Animal Track Guide*
- pencils/pens
- Peterson Flash Guides Animal Tracks (optional)

Subjects: science

Time: 15 minutes

Are You on the Right Track?

Supplies: Animal Track Guide worksheet

Procedure: Test your tracking skills with these mini mysteries.

Mystery 1: The alarm clock rings and you drag yourself out of bed. It is time for school. You wash, get dressed and eat breakfast. You then pull on your coat and exit the house. It is a very gray and cloudy day. As you walk down the path you notice that your neighbors' trash cans have been overturned. You wonder if those Thompson kids down the road did it. They were always up to something! Come to think of it, you remember hearing loud noises last night, it must have been the trash cans, but you also remember some other strange animal screeching sounds. The garbage is spread all across the street. As you walk closer you notice the nasty stench of garbage, and some very interesting markings in the left-over mashed potatoes which are now splattered on the ground. Always the enthusiastic tracker you run inside to get your camera and take a picture of the tracks. What could have happened?

L = 1 1/8 inches



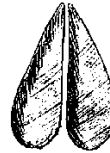
L = 3 inches



Hand Foot

Mystery 2: You are walking through a thick deciduous forest. The forest floor is covered with crunchy dry leaves. Your footsteps are very noisy as you progress further through the forest. There are lots of insects buzzing around your head, and you wave your arms around trying to swat the annoying insects. You walk to the edge of the forest and as you look down you see tracks in a line down to a vast blue lake. They are not very fresh, but you see a couple of clear prints. You take your ruler and measure one track. It is 7 inches and another track is 2 1/2 inches. Your eye catches some plants that have been cut at a 45° angle. You walk down to the edge of the lake and feel the cool breeze on your face. There aren't as many biting insects down here. The animal tracks are not clear at the edge of the lake, but you can make out that the animal has walked a little way around the edge. The lake has a number of aquatic plants growing within and around it. As you step closer you noticed that the plants in this area have been chewed on. You also notice some round scat that is about a 1/4 inch in size. Can you ID these tracks?

L = 7 inches



L = 2 1/2 inches



Mystery 3: Today you get to go on a great field trip to Cumberland Island in Georgia. You are very excited. You get on the ferry with your friends and arrive on the island very early in the day. You have heard that there is a great variety of wildlife on the island and you can't wait to spot some. You walk along the unpaved trail and enjoy the wonderful scenery. Suddenly, you hear a cry of delight as your friend exclaims that he has found a claw on the sandy trail. He picks it up and hands it to you to look at. You immediately know that it is not a claw, it appears to be some kind of dark gray tooth. It looks a bit like a really small arrow head. You look down at the ground and notice some tracks. You draw a picture of the tracks. You are annoyed because you forgot your ruler, but note that the tracks are about the length of your Milky Way bar. Your mind is boggling, what could leave those tracks, but have teeth like razors? Can you ID the tooth and tracks?



Are You on the Right Track?

Supplies: Animal Track Guide worksheet, pencil/pen
Procedure: Test your tracking skills with these mini mysteries.

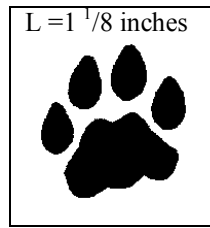
Mystery I

Tracks/Animal Signs:

Mystery II

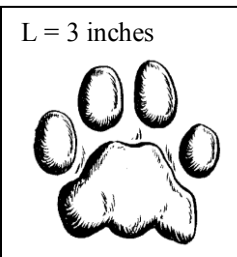
Tracks/Animal Signs:

Animal Track Guide Worksheet



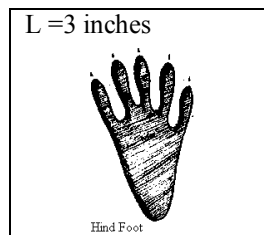
Domestic cat, *Felis domestica*

- Ranges throughout the U.S. and most of the world
- Tracks absent of claw marks
- Neat, fairly straight trail
- Habitat: Usually found in urban areas, but may be feral in more rural, wooded areas.



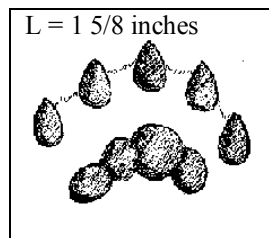
Mountain lion, *Felis concolor*

- Originally ranged throughout the U.S. and Mexico, now gone from much of its territory.
- Chiefly nocturnal; rarely seen
- Habitat: Den in rock crevices or caves, hollow trees, or hollow logs, or in other protected areas in thickets.



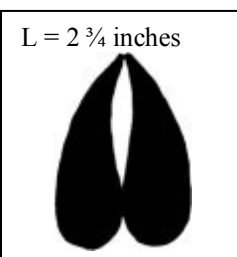
Raccoon, *Procyon lotor*

- Most of the United States and into lower Canada; usually avoids dry desert.
- Hand-like print, usually paired
- Habitat: marsh, lake, stream edge; often found in suburban areas



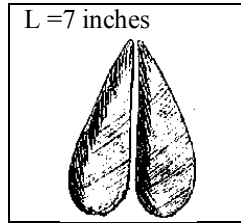
River Otter, *Lutra canadensis*

- Originally found throughout United States
- Fluid in water, but plows through land and snow
- Habitat: lake and stream edge



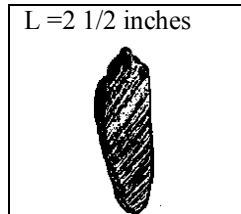
Whitetail Deer, *Odocoileus virginianus*

- Eastern and Central North America; northwards into Canada; south into Mexico and Central America; westward into the Rocky Mountain region.
- Large, white tail that is held aloft when the deer runs.
- Habitat: woods, brush, field



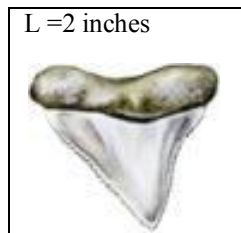
Moose, *Alces alces*

- Boreal forests of North America and northern part of the Rocky Mountains; Canada; Alaska
- Staple food = willows, water lilies, and other aquatic plants.
- Habitat: near water in northern woods



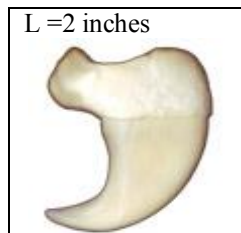
Eastern Cottontail Rabbit, *Sylvilagus floridanus*

- United States, Mexico, and parts of Central America
- Browse on low plants, cut at 45° angle.
- Besides tracks, common sign is small, pellet-shaped scat
- Habitat: open woods and brush



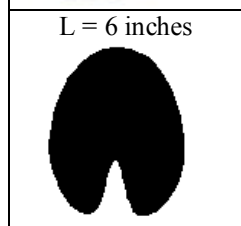
Shark, class Chondrichthyes

- Swim off of coastal areas
- Teeth embedded in soft tissue, rather than the jaw
- Teeth are lost and replaced throughout lifetime (some as often as every 8-10 days)



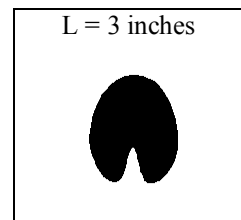
Cheetah Claw, *Acinonyx jubatus*

- Semi-retractable claw; worn down over time
- Habitat: semi-desert, thick brush, and prairie; mainly found in Africa



Unshod Horse, *Equus caballus*

- Rarely found wild; only in protected areas
- Tracks: single round/oval hoof, with the V mark of the frog in the middle



Burro, *Equus asinus*

- Also known as donkey; burro usually refers to being wild rather than domesticated.
- Tracks: single round/oval hoof, with the V mark of the frog in the middle
- Habitat: desert, within 10 miles of water