Winter World Pre-activity: Animal Tracking 101

Allow about 30-45 minutes for this activity

We can learn a lot about animals by studying their behavior. Really good trackers can tell you how big an animal is, sometimes if it is a boy or girl, what direction they were looking while they were walking and even if they are injured.

The best trackers think like the animal and gather as many clues as they can find before making an educated guess.

One animal sign we will definitely find outside when we are at Woodland Dunes are animal tracks. There is a special formula you can learn that will help you figure out who's tracks you are looking at.

"The Tracking formula consists of three words that all begin with the letter *P*. The fist thing you want to look for is the animals' foot _____" (pause to let students fill in the word *print.*) A clear footprint can tell you a lot about the animal trail you are looking at, but is also one of the hardest clues to find.

The next thing you want to determine is the design that the footprints are making in the snow. This design keeps repeating itself and is called a track _____ pause - *pattern."*

"The last thing that you want to look for is where the animal is going or if it has a secret hiding _____ pause - *place*. During this stage of your investigation you also want to think about where you are geographically and what animals live in the place you are. Note the habitat . . if you are along a river, in a forest, in the desert. These are all important clues.

"The secret formula is *PRINT, PATTERN, PLACE!!* Can you all repeat that a couple of times. It is very important to use this formula when trying to identify tracks. Many people will look at one print and try to decide which animal left the track. They forget the other clues are just as important to figuring out who's tracks you are looking at. The more information you can gather the more likely you will be correct in your guess.

Groups of animals have different shapes, because of their different shapes they have unique ways of moving that create different track patterns. To complete the activity, divide the class into 4 groups. Each group is going to be in charge of becoming experts at a particular track pattern. Explain that you are going to give them a card (found at end of this lesson) that will tell them more about the animals that make the particular pattern, their job is to brainstorm animals that would live at Woodland Dunes that they think might make that pattern, demonstrate how the animals move and then teach their classmates about the pattern and the animals that make that pattern.

Track Pattern Background for Teacher

Explain that we are going to focus on mammal tracks since that is most likely what we will see at Woodland Dunes.

Perfect Walker or Straight Walker – To walk like a perfect or straight walker you need to move your right hand and left foot at the same time. Many of these animals put their back foot in almost the same place as their front foot making it look as if they only have two legs. Animals that move like this: Babies when they crawl, Undulates like deer, moose, caribou, sheep, cows . . . canines like dogs, wolves, coyotes, foxes and felines like cats, bobcats, lynx, cougars.

Hopper Pattern – Hoppers have one pair of feet that is quite a bit larger than the other pair. Point out that the hopper pattern is interesting because the larger back feet often land in front of the smaller front feet. Ask the students how an animal might do this? Hoppers: Squirrels, mice, rabbits, chipmunks, voles and shrews. Fun fact: squirrels and other tree dwelling hoppers often land with their front feet next to each other, rabbits who live on the ground often have a pattern where the front feet are diagonal.

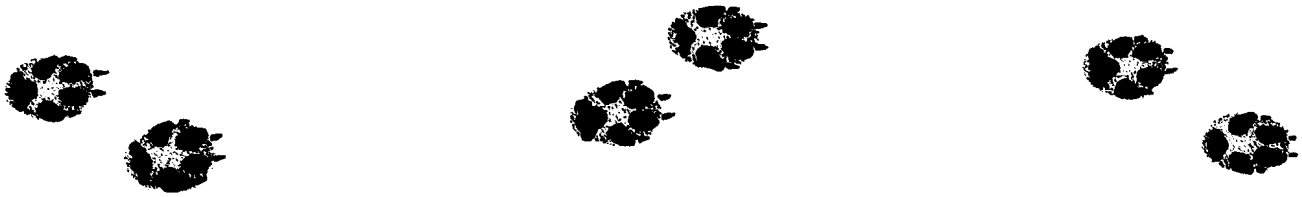
Waddler - Waddlers are slow moving animals with wide bodies, they switch their weight between their left and right side as they walk, moving their right legs and then their left legs at the same time. They are the animals that don't need speed because they have other means of defending themselves. Waddlers: skunk. have their smell . . . porcupine has its quills, the bear its size, the raccoon its sharp teeth. Other waddlers are muskrat, fast swimmers can dive under the water to avoid predators, opossum (plays dead).

Bounders – Bounders move like a slinky, making a square pattern with their feet. They push off with their strong back legs straightening out their body. Then land with their front feet first, the back feet follow landing just behind the front feet making a square. They are bunched up at this point then push off with their back legs again straightening out and landing in the bunched up slinky position. Front feet land then back feet land. Bounders -Weasels, mink, otter, marten and fisher. These tracks are the least common in urban areas. We might get to see them at Woodland Dunes if we are lucky. All members of the weasel family except skunks are bounders. Bounders have long, narrow bodies and very short legs.

Once all the groups feel comfortable have them go up front and teach the other groups about their pattern. If they are having a hard time ask them questions. What pattern did you have, what animals move like this, can you demonstrate how they move? Have them draw the pattern on the chalkboard.

Review the four track patterns briefly and have them repeat the secret track formula. PRINT, PATTERN, PLACE! You should be ready to try your skills on your field trip at Woodland Dunes.

Tracking cards to print off for your students

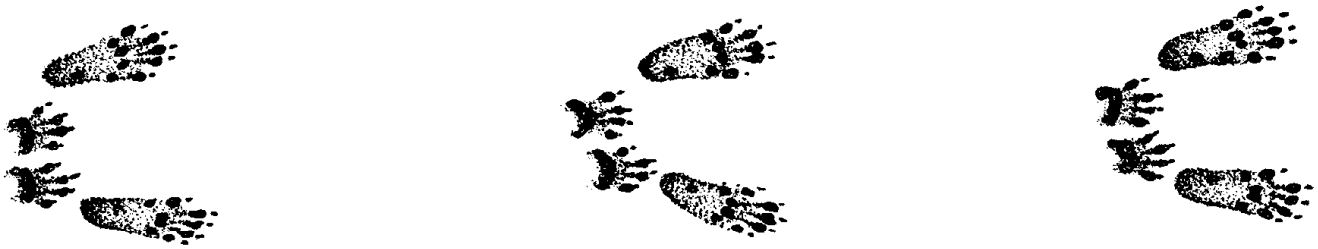


PERFECT OR STRAIGHT WALKER

Perfect walkers are animals with four legs all close to the same length and size.

They move their right front foot and back left foot at the same time and their left front foot and right back foot at the same time. Many of these animals put their back foot in almost the same spot as their front foot making it look as if they only have two legs!

Can you think of animals that walk like this? They often have longer legs than other animals.

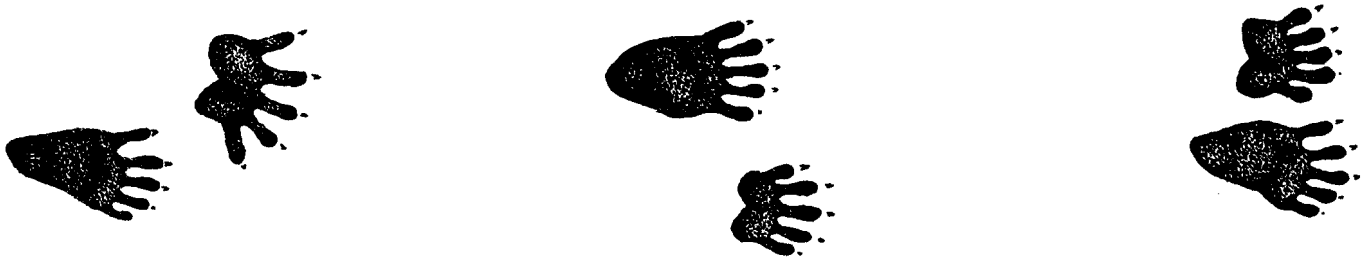


HOPPER

Hoppers have one pair of feet that is much larger than the other pair. The hopper pattern is interesting because the larger back feet land in front of the smaller front feet.

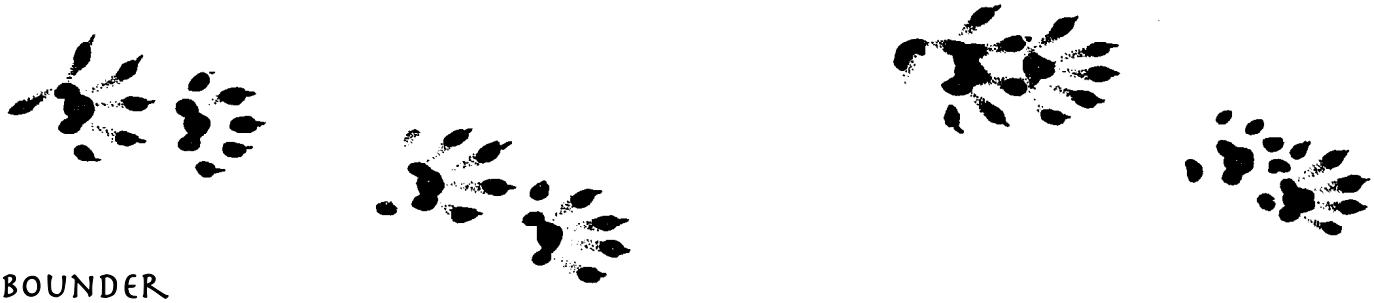
To demonstrate this, on all fours, place your hands between your legs. Moving forward swing your arms ahead first, put your weight on your arms and swing your legs around the outside of your hands landing slightly in front of them. This is a tricky one if you aren't shaped like these animals, but fun to try!

Can you guess who the hoppers are? Think of animals with really big back feet and small front feet.



WADDLER

Animals that waddle are slow moving with wide bodies. they switch their weight between their left and right side as they walk. The waddler's weight shifts to the right as both the left hand and foot move forward at the same time, then shifts to the left as the right hand and foot move forward at the same time. They are animals that don't need speed because they have other ways of defending themselves. Can you figure out what animals might be waddlers, think of animals that have creative ways of defending themselves!



BOUNDER

Bounders have long narrow bodies and very short legs. To move like a bounder, leap or bound forward pushing off your back legs, raising your hands in the air. Your front feet (hands) should land first followed by your back feet. In deep snow bounders often leave a drag mark between the front and hind prints, sometimes forming a dumbbell shape. When bounders move they look like a slinky. When leaping they are stretched out, when they land they are crunched together. Can you figure out who moves by bounding?

Winter World Post-activity: Urban Wildlife

Ask students to spend time looking in their backyard and neighborhood for animal tracks and signs of WILD animals not companion animals like dogs and cats. Have them record their findings on the worksheet provided below.

In-school make a graph of the animal signs your students found in their explorations. What animals did students see signs of the most?

Give students time to brainstorm the animals they found signs of at Woodland Dunes. What animals are the same? What animals are different? Why do they think the animals are the same? different? between the two areas?

Some animals are able to adapt to living in urban environments. Though these animals try to avoid human contact, they enjoy our garbage, litter and gardens as places to find food. Some animals do not adapt to urban living and need larger woodlands, prairies and fields.

If you have a mix of students living in the country and city you can do a comparison between the city, country and Woodland Dunes.

This discussion can lead to a conversation about land preservation.

Print the worksheet below for your students. Give each student multiple copies to accommodate the different animals they find signs of.

Look for animal signs around your home and neighborhood.

Tracks, Scat, Urine, Homes, Eat Marks, animal parts, actual animals

Record the animal signs and your guess as to who the animal is that made them. Try to find signs of 4 different animals. Use the tracking guide below to help you track.

1. Animal Sign(s): Animal:
2. Animal Sign(s): Animal:
3. Animal Sign(s): Animal:
4. Animal Sign(s): Animal:

Trackers Remember the secret formula **pattern, print, place**!

Find tracks. What pattern are they in?
perfect walker? hopper? waddler? bounder?

Sketch the track patterns you find. Are they walking, hopping, bounding, waddling?

Can you find a good print?

Sketch the prints you find here. Make sure to include the number of toes and any claw marks you see.

Take Measurements.

Follow the tracks and find any clues about the animal. Where the animal came from, where it might be going, what they were eating.

Write your observations here.