

# On the Right Track



# National Mississippi River Museum and Aquarium Conservation Education Curriculum

**Target Grades:** 4<sup>th</sup> – 6<sup>th</sup>

**Key Words:** Gait, Senses, Animal Sign, Scat, Territory

**Subject Areas:** science

**Duration:** 45 minutes

Time can be extended by request

## **Title: *On the Right Track***

Program presented on site at Museum.

### **Summary:**

Have you ever taken a hike through the woods or along the river and been disappointed because you were unable to see any animals? Did you see tracks and other signs telling you animals were there at one time, but are now gone? Did you know what made those tracks? In this program, students will learn to match some of the sights, smells and sounds in the wild with the animals they come from. Students will see and handle many signs left by animals, hear sounds made by animals, and try to identify the animals they go with. Come explore the life of animals unseen. We will even learn to walk like different animals.

**Objectives:**

Students will be able to...

1. Give examples of types of animals signs and how to find them
2. Give examples of how animals use their five senses

**Group Size:**

Up to 30 students

**Background for Educators:**

Animals live in a variety of homes, leave a variety of tracks, and give off a variety of smells. It is our goal to match these with the animal leaving these clues behind. Much of our animal behavior knowledge comes from first hand observation by wildlife researchers. Most of us rarely get to see wild animals because of many reasons. First, many are nocturnal and spend daytime hours in caves, hollow trees/logs, and holes. Second, they have highly tuned/developed senses which alert the animals to our presence. They will run and hide from us. Third, we do not always have the patience to be still, quiet and camouflaged long enough for the animals to come out of hiding. We must use other clues to learn about the habits and lives of animals.

*Tracks and Trails:* All animals leave a track when they walk. Reading the tracks is a skill gained with much practice. These tracks can give us an idea of where the animal has been, which way it is going, how many there are, if it was running or walking, as well as which animal it came from. These can be very important to scientists studying animals. They can help them gain further knowledge of how the animals travel, eat, sleep, etc.

*Scat and Urine:* This is a little disgusting, but these two things can actually help you find an animal or determine if an animal has been there. Not only that, but it can help you figure out what the animal has been eating. Different animals leave different shapes, sizes and compositions of scat. Some, like raccoons, will often place scat in the middle of trails. Otter often have scales of fish in their scat. Muskrats have green scat because of all the plants they eat. Some, like fox, dogs, and coyotes, often have fur in their scat from all the small mammals they eat. Urine can often be used to mark territory. The urine of a red fox smells like dirty socks. If you smell this, it may be an indication that the animal has been in the area marking.

*Eat Marks:* Beaver teeth leave noticeable marks in the trees they cut down. Mice and other small rodents will chew on deer antlers for calcium.

These markings are a good way to tell if the animals are in the area (even if you cannot see them).

*Homes:* Animals have a variety of homes. Birds live in nests or hollow trees, bees live in hives, some animals burrow under the ground, some animals live in their own shells, and some animals even live on or in other animals. If you find the home of an animal, you may be lucky enough to see the animal itself. If not, you will at least be able to tell what type of animal is/was living there.

*Body Parts:* Fur, teeth, skin, bones, etc. These are all parts of the body one may find out on the trail. These animal parts can help you identify the animal they belong to.

*Territory Markings:* Territory markings do not only consist of animals spraying around the territory. Some animal may use antlers to rub the bark off trees. There are many ways to mark territory. Keep your nose on alert for you may smell animals without seeing them.

*Sounds and Smells:* Almost everyone has walked outside and heard a bird calling. Maybe even a cat meow or a dog bark. Sometimes one hears animals but does not see them. If you can identify the sound, you can identify the animal.

Smells are also important. They keep the territory marked and sometimes keep the animals safe. The skunk is the best example. A skunk will spray a horrible-smelling musk when as a last resort to threats. This musk not only hurts the eyes of the attacking animal, but also smell bad enough to keep many animals away.

*Gaits:* See attached diagram and description

### **Materials Needed:**

1. on the right track container
2. big wipe board (docent lounge, blue shelf)
3. dry-erase markers
4. eraser
5. identifier

**Procedure:**

*Pre-Program:* Write the following things on the board for the students to unscramble during the program.

1. KSRACT (TRACKS)
2. ILTRSA (TRAILS)
3. TCSA (SCAT)
4. ERUNI (URIN)
5. OTOH AKMRS (TOOTH MARKS)
6. MOSHE (HOMES)
7. OYDB RPTAS (BODY PARTS)
8. RIRYROETT AIKMRNSG (TERRITORY MARKINGS)
9. DOSSUN (SOUNDS)
10. LLSEMS (SMELLS)

Also write the four different gaits and draw diagrams of each at the bottom of the board.

*Discussion:* Ask the students how many of them have ever been outside on a

walk or hike. Then ask if they have ever been disappointed about not seeing any animals. Do you think animals are there even though you don't see them? Of course. Next discuss some ways to find these animals.

Have the students unscramble the first line. Discuss how these can be used to determine which animals were there and which way the animals were going. Hand out a track to each four to five students. Give them a minute or two to figure out together what animal would have made that track. Show some books and identifying guides they can use to help identify tracks in the wild outdoors.

Have the students unscramble the second line. Discuss how these can be used to determine what animal has been there and what that animal has been eating. Hand out scat to the same small groups and see if they can figure out which animal would leave those droppings. There are scat identifying guides out there as well.

Have the students unscramble the third line. Discuss what animals leave chew marks. Which animal do they think of first? Use the deer antler with rodent chew marks on it and the beaver chew to show this. These can be passed around if the students are careful not to poke or hit each other with them.

Have the students unscramble the fourth line. Discuss different animal homes one might find on a hike. Use the mussel shell, gall, and nest to aid in this discussion.

Have the students unscramble the fifth line. Discuss what types of body parts would be left behind by animals. Use the deer antler, snake skin, etc to aid in this discussion.

Have the students unscramble the sixth line. Discuss different ways animals mark their territory. Discuss how scat, scents, rubbings on trees, musk, etc are used as markings by different animals.

Have the students unscramble the seventh line. Discuss how one would know animals are present by different smells and sounds. Use the identifier to aid in this discussion. See if the students can identify birds or frogs by the sound they make.

Conclude by reminding the students of the fact that animals can be found in many different ways and reviewing the seven categories previously discussed. Just because animals are not out to be seen doesn't mean one can't have fun finding signs of the animal's presence.

The next step is teaching the students the four gaits animals walk with. Begin with diagonal walkers because that is the gait of humans and will be the most comfortable. Demonstrate for the students and give them the chance to try it (one time across the room). Do the same for the remaining three gaits. Demonstrate and then give them the chance to attempt. Make sure they are taking their time to get it right. If the students go too quickly, they could fall face first into the floor on some of the gaits.

Smell activity:

Use the four containers of scent wafers that are numbered from 1 - 4. Divide the group into four teams and have them choose one recorder to write down the team answers. Take the lids off of the scent wafer containers so that the students cannot read what scent is in each container. Explain that these smells will be stronger than a human would be able to smell them, but may be like a deer, fox, or squirrel may be able to smell these items in the wild.

Pass around each container group by group to make sure all of the students have a chance to smell them each and record their group answer for

each container. Poll each group to see what they say for container 1, 2, 3, and 4. Now tell them the correct answers and show them the lids. Some groups may want to re-smell a certain container after they are given the answer.

Replace the lids tightly and return to the “On the Right Track” trunk. Talk about the importance of smell for animals to mark and know where other animal’s territories are or in finding a mate. Maybe even in defense as with the skunk.

**Evaluation:**

**Additional resources:**

- Animal Signs lesson plan: Eagle Bluff Curriculum

**Extensions:**

- Animal Track Match-up and Mammal Word Scramble Worksheet

Related programs available at the National Mississippi River Museum & Aquarium:

***Rockin’ Reptiles and Awesome Amphibians***

***Mammals of the Mississippi***

***Mississippi River Night Life***

***Mississippi River Life***

**Credits:**

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### Smells in Nature Worksheet

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|---|---|
| 1 | 2 |
| 3 | 4 |

### Smells in Nature Worksheet

|   |   |
|---|---|
| 1 | 2 |
| 3 | 4 |

### Smells in Nature Worksheet

|   |   |
|---|---|
| 1 | 2 |
| 3 | 4 |