

# Name That Track

**Created By:** An original Creek Connections activity. Creek Connections, Allegheny College, Box 10, Meadville, PA 16335. <http://creekconnections.allegheny.edu>

**Grade Level:** Basic or intermediate

**Duration:** Approximately 45 to 60 minutes depending on discussion time.

**Setting:** Classroom

**Summary:** Students observe pictures of animals and their tracks.

**Objectives:** Students will learn about some of the unique characteristics and tracks of several streamside animals. Also, by paying close attention to the tiny differences among tracks, students will be able to identify the animal that made them.

**Vocabulary:** snood, omnivorous, flat-footed, marsupial, opportunists, ruminant, dewclaw

**Related Module Resources:**

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**Materials (Included in Module):**

- Pictures of 14 different animals and their tracks.
- Answer key to matching game
- Animal Tracks Field Guide

**Additional Materials (NOT Included in Module):**

- None

**ACADEMIC STANDARDS: (ENVIRONMENT AND ECOLOGY)**

**7<sup>th</sup> Grade**

4.7.7.A. Describe diversity of plants and animals in ecosystems.

- Identify adaptations in plants and animals.

4.7.7.B. Explain how species of living organisms adapt to their environment.

**10<sup>th</sup> Grade**

4.1.10.C. Describe the physical characteristics of a stream and determine the types of organisms found in aquatic environments

- Identify terrestrial and aquatic organisms that live in a watershed.

4.7.10.A. Explain the significance of diversity in ecosystems.

- Identify a species and explain how its adaptations are related to its niche in the environment.

4.7.10.B. Explain how structure, function and behavior of plants and animals affect their ability to survive.

- Describe an organism's adaptations for survival in its habitat.
- Compare adaptations among species

**BACKGROUND:**

Many wild animals are elusive creatures. Most of them you may never see when walking around in a streamside area. But, you can tell that certain animals live in the woods by looking for certain signs, such as tracks. Tracks are very helpful in identifying what type of animal may have walked through your nearby streamside. Some animals that might leave behind signs along Pennsylvania's streamside are red squirrels, turkeys, raccoons, opossums, cottontail rabbits, coyotes, red foxes, black bears, bobcats, white-tailed deer, muskrats, beavers, skunks, and porcupines.

Red squirrels are unique animals. They are always cautious and energetic. They have soft, rusty brown fur. By using their front paws and mouth, red squirrels collect many different kinds of nuts including acorns, hickory nuts, walnuts, and pinecones. Then they store their harvest in numerous locations for the hard times during the winter months. Red squirrel tracks are unique because they have four toes on the front feet and five toes on the hind feet. All of their toes have sharp claws.

Turkeys are very unusual birds. Their feathers are rich brown in color with luminescent colors of green and blue. The color of their head is generally bluish-gray and their neck may have a touch of pink. Males have an appendage called a **snood** that hangs down between its eyes. Turkeys have keen eyesight and hearing. They are good hidiers, but if threatened, they will fly,

swim, or run for cover. They can run up to 18 m.p.h. Their tracks are about 4.5 inches in length, from heel to middle toe. Their feet consist of three toes, each having a sharp claw. Males also have a sharp spur, which is located behind the heel of each foot.

Raccoons are very curious creatures. Their distinctive black mask makes them look like a bandit. They have a ring-like tail and soft black-brown fur. Raccoons are **omnivorous** animals, which means that they will eat almost anything, including fruits, vegetables, meat, bugs, eggs, nuts, and garbage. They have an excellent sense of hearing, sight, smell, and touch. They are great climbers, but very slow runners. Raccoons are **flat-footed** creatures, which means that they walk on the soles of their feet with their heels touching the ground. Raccoons have little feet and hands that resemble a human's, but their five "toes" are thin and long with sharp claws.

Opossums are the only **marsupials** in North America. **Marsupials** carry their babies in a pouch until they are old enough to venture out into the world. Opossums have a pointed snout and a long, rat-like tail. They have a keen sense of smell and touch, while their sense of hearing and sight is weak. Opossums will eat anything edible that comes their way, such as insects, snakes, eggs, birds, small mammals, berries, plants, and garbage. Their coarse fur is light gray and their feet are dark brown or black. They are slow movers but are excellent climbers. They have five toes on each foot and each toe has a claw except the first toe of each hind foot. This toe is long and capable of grasping, like a thumb.

Cottontail rabbits have soft brownish color fur on top and white below. Their distinctive white tail is visible when they run for cover. They eat plant matter such as leaves, fruit, weeds, clover, grass, twigs, bark, buds, and garden vegetables. They have a keen sense of smell and hearing and when they sense danger, they run in a zigzag pattern to escape predators. Their hind feet are very long and thin compared to their front feet. This provides an extra boost of speed when running or hopping away from predators. They have four toes and a **dewclaw**, which is a claw that does not reach the ground and is located on their front feet and four toes on the hind feet.

The Eastern coyotes of Pennsylvania are unique. Most can weigh between 35 and 55 pounds (15.9-25 kilograms). Their colors can range from being light blond, black, reddish blond, and gray to dark brown washed with black. Most are grayish in color. Coyotes prey on mice, voles, deer, rabbits, woodchucks, birds, insects, fruit, and plants. They have a keen sense of smell, sight, and hearing. Coyote's tracks, which are slightly narrow, resemble the tracks of a medium-sized domesticated dog.

Red foxes have characteristic reddish-orange fur, which darkens slightly on the back. Their ears, legs, and feet are black, while the tip of their tail is white. Foxes are fast runners and can even swim if necessary. They are primarily nocturnal creatures, who prey on anything that is easy to catch, like mice, rats, rabbits, woodchucks, opossums, porcupines, cats, chickens, insects, squirrels, birds, eggs, fruits, and grasses. Their tracks are slightly smaller and wider in shape than coyote tracks.

Black bears are the largest hunted animal in Pennsylvania. Generally, they weigh between 140 and 400 pounds (63.5-181.4 kilograms) and are black in color. Some bears may appear to be cinnamon in color as well. Black bears walk in a flat-footed manner. Curved claws are attached to five toes on each foot. Their hind feet are a few centimeters larger than their front feet. They can even stand on their hind feet in order to see and smell better. Black bears can climb and swim easily. Also, black bears have a keen sense of smell, but weak vision and hearing. Black bears are **opportunists**, which means that they will eat just about anything that comes their way.

Bobcats are very elusive creatures. They have a sharp sense of sight, smell, and hearing. Their fur is generally gray-brown with dark spots and bars. Their lips, chin, neck, and belly are white. They have a characteristic bobbed tail. They also have five sharp claws, which are located on each front foot and four on each hind foot that are capable of retracting. Bobcats are excellent swimmers and climbers as well. They prey on mice, birds, rabbits, mink, muskrat, skunk, fish, frogs, insects, foxes, and porcupines.

The white-tailed deer is named after the underside of its tail, which is covered in white hair. When a deer is running, its tail is held up high, showing its white underside. Their hair color is generally reddish to grayish brown, but their throat, belly, areas around the eyes, insides of their ears, and the underside of its tail are white. In the winter, older males grow antlers for mating purposes. White-tailed deer have a keen sense of smell and hearing, but have poor vision when it comes to seeing inanimate objects. Deer can run up to 40 m.p.h. (64.6 k.p.h.) when escaping predators. When looking at their tracks, you can see that they have split-hooves. They eat numerous types of herbaceous and woody plants. White-tailed deer are known as **ruminant** mammals, which means that they chew cud.

Muskrats are known for their “musk”, which is a strong-smelling odor that they release from their perineal glands. Muskrats resemble small beavers, but they have a long, scaly, and hairless rat-like tail. Generally their fur is chestnut-brown to almost black, or any color in between. Their front feet are smaller than their hind feet, which all have claws. When looking at their tracks you may be able to see a faint line running between the tracks. This shows that the muskrat’s tail drags along the ground. In addition, they mainly eat the roots and stems of aquatic plants and other herbaceous material.

Beavers are North America’s largest rodents. They have a shiny tan to dark brown coat on top and a paler coat below. It is made up of dense under-fur covered with guard hairs. A beaver’s thick fur and body fat help keep it insulated in the cold water. The beaver has a unique shovel-like tail, which is made up of a leathery, scaly covering. As the beaver swims, its tail acts as a propeller and a rudder. The tail is also used as a warning signal for other beavers. Another interesting fact is that a beaver’s front feet are dexterous, with long claws attached. “The thumb is small and weak, but the little finger is strong and has taken over the thumb’s role. The hind feet, broad and webbed between the toes, propel the animal through the water. The second claw from the outside on each hind foot is split

and is used for grooming”(Fergus). Beavers have poor vision, but their hearing and sense of smell are acute. They eat vegetable material with their constantly growing teeth. They have to gnaw on wood in order to keep their teeth worn down.

Striped skunks are the smelliest animals that live in Pennsylvania. “A skunk’s body is mostly black, with white occurring in a narrow blaze up the middle of its forehead, a broad patch on the back of its head, and a V-shaped mark over its shoulders. These markings form stripes that continue along the animal’s back, often uniting at the base of its tail. The stripes vary in width and length” (Fergus). Skunks’ sense of sight, smell, and hearing are poor, but their sense of touch is acute. Skunks are **omnivorous** creatures, which means that they will eat just about anything. On each of their five toes they have long, sharp claws, which are used for digging. While slowly walking around, their heels touch the ground because they are **flat-footed** creatures.

Porcupines are one of the most well-armored animals. They have specialized hair or quills that cover most of their body. Porcupines also have a woolly, soft underfur and long, stiff guard hairs. They have a club-shaped tail and an arched back. They are slow and clumsy creatures that walk on thick-skinned and callused feet, which have curved claws. Porcupines vary in color from salty-black to brownish-black, with some yellow or white-tipped hairs. Their sense of hearing and sight are poor, but their sense of smell is keen. Also, they mainly eat vegetable matter.

### **REFERENCES:**

- Murie, O. (1954) Peterson Field Guides: *Animal Tracks*. Houghton Mifflin Company, Boston: New York.
- Fergus, C. *Wildlife Notes*. Bureau of Information and Education Pennsylvania Game Commission, Harrisburg: Pennsylvania

### **OVERVIEW:**

Teachers will discuss the unique characteristics and tracks of red squirrels, turkeys, raccoons, opossums, cottontail rabbits, coyotes, red foxes, black bears, bobcats, white-tailed deer, muskrats, beavers, skunks, and porcupines. Then, by paying close attention to the tiny differences among tracks, students will be able to identify the animal that made them in the “Name That Track” activity.

### **PROCEDURE:**

#### **Teacher Preparation:**

Find the activity folder marked “Name That Track”. The pictures and tracks of each animal are paper-clipped together. The animal pictures are numbered from 1 to 14 and the animal tracks are marked with letters from A to N. An answer key is provided for the matching game activity.

#### **Student Activity:**

1. Describe each animal to the students and/or have the students look at the picture of each animal and discuss identifying characteristics.

2. When the discussion is complete, students can be split up individually or in groups and will try to match each picture of an animal to each different set of tracks. Some field guides will help with the identification process and can be found in the module. An answer key will be provided.

### **DISCUSSION:**

What types of food do red squirrels eat? *Answer: They like acorns, hickory nuts, walnuts, and pinecones.*

Explain the characteristics of a muskrat's tracks? *Answer: Muskrats front feet are smaller than their hind feet, which all have claws. When looking at their tracks you may be able to see a faint line running between the tracks. This shows that the muskrat's tail drags along the ground.*

What is the fleshy appendage that dangles between the eyes of a male turkey? *Answer: A snood.*

What is unusual about raccoon feet? *Answer: Raccoons are flat-footed creatures, which means that they walk on the sole of the foot with the heel touching the ground. Raccoons have tiny little feet and hands that resemble a humans, but their five "toes" appear to be thin and long with sharp little claws.*

Give an example of a Pennsylvania critter that is a marsupial? *Answer: The opossum.*

What is unique about a cottontail rabbit's feet? *Answer: A cottontail rabbit's hind feet are very long and thin compared to their front feet. This provides an extra boost of speed when running or hopping from predators. They also have four toes and a dewclaw on their front feet and four toes on the hind feet.*

What do the Eastern coyote's tracks resemble? *Answer: They closely resemble a medium-sized domesticated dog's tracks.*

What makes a beaver's tracks so unique? *Answer: The beaver's front feet are dexterous, with long claws attached. The thumb is small and weak, but the little finger is strong and has taken over the thumb's role. The hind feet, broad and webbed between the toes, propel the animal through the water. The second claw from the outside on each hind foot is split and is used for grooming.*

What are some of the items that red foxes like to eat? *Answer: Red foxes eat mice, rats, rabbits, woodchucks, opossums, porcupines, cats, chickens, insects, squirrels, birds, eggs, fruits, and grasses.*

Describe the main characteristics of a turkey's tracks. *Answer: Their tracks are about 4.5 inches (11.4 centimeters) in length, from heel to middle toe. Their feet consist of three toes, each having a sharp claw. Male turkeys also have a sharp spur that is located behind the heel of each foot.*

What is an omnivore? *Answer: An animal that will eat just about anything that is edible, such as a black bear or raccoon.*

What animal listed above has a bobbed tail, dark spots, and grayish-brown fur on most of its body? *Answer: The bobcat.*

White-tailed deer are ruminant animals. What does ruminant mean? *Answer: Ruminants chew cud.*

What characterizes a muskrat? *Answer: Muskrats are characterized for their “musk”, which is a strong-smelling odor that they release from their perineal glands. Muskrats resemble small beavers, but they have a long, scaly, and hairless rat-like tail.*

What type of streamside critter has a split hoof? *Answer: The white-tailed deer.*

What is a beaver’s tail used for? *Answer: As the beaver swims, its tail acts as a propeller and a rudder. The tail is also used as a warning signal for other beavers.*

What does a striped skunk eat? *Answer: They are omnivores, so they will eat just about anything that comes their way that is edible.*

What physical characteristics do porcupines have? *Answer: Porcupines have specialized hair or quills that cover most of its body. They also have a wooly, soft underfur and long, stiff guard hairs. They also have a club-shaped tail and an arched back.*

What characterizes a bobcat’s tracks? *Answer: Bobcats have five retractable, hooked claws on each front foot and four on each hind foot.*

### **EVALUATION:**

- Quiz the students on the discussion questions above or create your own from the background material.
- Have students correctly match the animal pictures and tracks.

### **EXTENSIONS AND MODIFICATIONS:**

- If the students are not familiar with the wildlife in Pennsylvania, take the animal pictures and turn them over to see what type of animal they are.
- Students could do a report on one of the unique animals listed above.
- Students could create an artistic poster about one of Pennsylvania’s creatures that they find interesting and unique.
- Teachers could take their students to a nearby stream and look for any signs of wildlife along the banks.

**NOTES (PLEASE WRITE ANY SUGGESTIONS YOU HAVE FOR TEACHERS USING THIS ACTIVITY IN THE FUTURE):**



## KEY : NAME THAT TRACK

1. H (Porcupine)
2. A (Raccoon)
3. I (Cottontail Rabbit)
4. E (Black Bear)
5. C (Opossum)
6. M (Striped Skunk)
7. D (Red Fox)
8. G (Coyote)
9. B (Bobcat)
10. J (White-tailed Deer)
11. F (Beaver)
12. K (Muskrat)
13. N (Turkey)
14. L (Red Squirrel)