

Trace A Track

Adapted from: Tracks!, Project Wild K-12 Activity Guide, Project WILD, p. 30-32

Grade Level: Basic or intermediate

Duration: Approximately an hour or longer depending on discussion.

Setting: Preferably, outside, near a stream or riverbank. If you are unable to find tracks, create some prints with the rubber track molds inside the classroom.

Summary: Students will create plaster casts of different types of animal tracks.

Objectives: By creating plaster casts students will be able to identify certain animal tracks.

Vocabulary: none

Related Module Resources:

Materials (Included in Module):

- Rubber tracks and stamps
- Ink

Additional Materials (NOT Included in Module):

- Memo pads for field guides
- Spray shellac
- Plaster
- Container to mix plaster
- Strips of cardboard
- Tape

ACADEMIC STANDARDS: (ENVIRONMENT AND ECOLOGY)

7th Grade

4.1.7.C. Explain the effects of water on the life of organisms in a watershed.

- Explain how water is necessary for all life.

4.1.7.D. Explain and describe characteristics of a wetland.

- Recognize the common types of plants and animals

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

- Identify adaptations in plants and animals.

10th 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.B. Explain how structure, function and behavior of plants and animals affect their ability to survive.

- Compare adaptations among species.

BACKGROUND:

Animals are always lurking around in nearby forests. These creatures can be very elusive, but they always leave behind some sort of sign, whether it may be scat, burrows, nests, markings, or tracks. Tracks are one type of sign that is important in identifying certain types of animals.

Tracks are very unique for each animal species. Some animals, move to walk in a flatfooted manner, like bears and porcupines, while others, like foxes and bobcats, walk on their toes. Other animals, like white-tailed deer, have hooves instead of toes. Measuring the distance between each track can show the length of an animal's stride. By noticing these and other specific characteristics, students will be able to identify what type of animal made a given track.

It takes time and effort to search for animal tracks. A good spot to look for tracks is in an area with smooth wet soil. An example is near the banks of a stream or river. Try to revisit a specific spot for several days to see if any animals come to drink. Animals need water in order to survive, so eventually they will come to drink. Also, look for trails that animals use quite often.

After you have discovered some interesting tracks, you can make plaster casts. By making molds of certain types of animal tracks, students will be able to create a field guide to use when they are outside looking for tracks.

OVERVIEW:

Students will learn about the different types of tracks that can be found in their nearby area. They should pay close attention to specific details in each track, so that they will be able to identify the animal that left the track behind.

PROCEDURE:

Teacher Preparation:

Before taking the class outside, the teacher should look for an ideal location where some tracks can be found, such as near a stream, river, or lake.

Student Activity:

1. Divide students into groups and have them look for tracks. One group may look near the banks of the stream, river, or lake and another group might look for animal trails.
2. When a track is located, remove anything that is covering the track, such as twigs, large stones, or leaves.
3. Using a spray can, spray the track with shellac or plastic sealant. This will help in sealing the track.
4. Cut a two-inch wide strip of cardboard and form it into a ring around the track. Use tape to secure the cardboard ring tightly together. Make sure the cardboard ring is pushed into the ground. Leave an inch of the ring above the ground.
5. Fill a container with two cups of plaster. Slowly, add water to the plaster and mix it until it is thick and creamy. Pour the plaster into the mold carefully until it reaches the top of the ring. Wait at least fifteen minutes for the plaster mold to harden.
6. When the plaster cast is hard, pick it up and brush or scrape off any debris that is stuck on the mold.

DISCUSSION:

Why are animal tracks useful? *Answer: By paying close attention to the specific details in each track, students can use their observations in identifying whether the animal that created the track was large, small, flatfooted, walked on their toes, or had claws.*

Where would you generally go to look for animal tracks? *Answer: Most animal tracks can be found near streams, rivers, and lakes. All animals need to drink often so that is generally where most tracks can be located.*

Which method is better, using pictures of animal tracks or looking at a mold of an actual track? *Answer: By looking at an actual mold of an animal track, students can take a closer look. Photographs of tracks are deceiving because they may not show the actual size of the track, plus they are not 3-dimensional.*

EVALUATION:

- Students followed the directions in creating plaster mold tracks.
- Students correctly identified tracks and were able to discern if the animal who left the track was small, large, flat-footed, walked on its toes, had claws, etc.
- Students can explain why streamsides are a good place to look for tracks.

EXTENSIONS AND MODIFICATIONS:

- Take the animal track molds that you created and use them to design a personal notebook field guide. Do this by covering the tracks with washable ink. Place the print onto a piece of notebook paper.
- If you are unable to find animal tracks, you can use the rubber track molds, which can be found in the Streamside Critters module. Cover the rubber molds with ink and press the mold onto a piece of notebook paper or onto a sheet of poster board.
- Create a poster by using all the animal prints that the students discovered on their outdoor excursion. Students can then try to guess what type of animal made each track.
- Have the students do a report on one of the animal tracks that they found and made a plaster cast out of. By doing so, students will have a better understanding about the animal that created the track.

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