

Project Skills:

- Youth will learn to make plaster cast of an animal track.

Life Skills:

- Critical thinking

Academic Standards:

- Science A.4.2 Collect information, make predictions, and offer explanations about questions asked.

Grade Levels: 4 and above

Time: 60 minutes

Supplies Needed:

Plaster Casting Activity

- Plaster powder
- Water
- Zip-lock bag (1 per youth)
- Measuring utensil
- Scissors (optional, for indoor activity)
- Cardboard collars
- Rubber molds or tracks (optional, for indoor activity)
- Sticks/pencils (for “tornadoing”)
- *Big Tracks Little Tracks: Following Animal Prints* (ISBN 006451941) (optional)

BACKGROUND

Wild animals can be very difficult to observe. Many wildlife species are active at night or do their best to avoid people. One way to learn about these elusive species is to study the clues that the animals leave behind, like their tracks.

Tracks show the footprint (and sometimes more – like a tail print) of animals. By looking at a series of tracks from one animal, you may be able to determine if the animal was walking, trotting or running. You may also be able to get clues as to what it was doing. Was it heading toward water? Bedding down for the night? Chasing prey?

WHAT TO DO

Activity: Plaster Casting of Tracks

Discuss animals and their signs with the group.

- What kinds of clues do animals leave? (Tracks, scat, snakeskins, eggs, nests, antler sheds and rubs, feeding signs)
- Where do animals leave tracks? What are the best conditions for looking at tracks? (Mud, snow, after a rain in sand)
- How do animals leave tracks? What are we seeing? What is a track exactly?

Give the youth the following directions for casting a track:

1. Find a track (or choose a rubber track mold for the indoor activity) and you are ready to start! If you are tracking outdoors, you will need a “collar” for the track. This circular form can be cut from an oatmeal or margarine container. Press the collar firmly into the ground or snow surrounding the track.
2. Add twice as much plaster powder as water to a Ziploc bag – about 1 cup powder to ½ cup water – for each track.
3. Seal bag tightly and “squish” with hands from *outside* the bag until the mixture is the consistency of a milkshake. Do not touch the mixture. It may burn slightly or irritate eyes. You may need to add more plaster or powder to get the desired consistency. Work quickly once the water is added and *don't overmix*.
4. Open the bag and push the plaster mix out of the bag by squeezing it. (If you are doing an indoor activity, cut a corner of the bag with a scissor and squeeze it from the top works best). Quickly pour into the track (or mold).
5. Make a “tornado” in the plaster. Using a stick or a pencil, start a vibration that will evenly settle the plaster and get out all the bubbles.
6. Let the plaster dry for 15-25 minutes. Drying time will depend on the temperature and humidity. You'll feel the warmth from the chemical reaction as the plaster cures. Handle the cast very carefully as it will be crumbly for a couple of hours.
7. While tracks are drying, provide youth with track guides to help them determine what type of animal made the track.



Do Ahead:

Outdoor Tracking

- Locate an area in which animals are leaving tracks.

Indoor Tracking:

- For an “outdoor feel” have youth use prepared plaster tracks to make tracks in a “sandbox.” A long shallow container with a couple of inches of sand makes a great portable sandbox.

Sources:

- Created by Paula Rogers Huff, 4-H Youth Development Agent, UW-Extension, Oconto County
- For track molds visit: www.enasco.com/.

TALK IT OVER**Reflect:**

- What kind of track did you find?
- Where were some of the best places to find tracks?

Apply:

- When you find a track, or series of tracks, what sort of questions might you have about the animal that left the track?
- Which of these questions do you think a tracker could answer by looking at the tracks?
- If a biologist was studying wolves, what are some ways that monitoring animals' tracks could help him or her learn more about wolves?

ENHANCE/SIMPLIFY**Enhance for Older Children:**

Create track scenarios on flip chart paper and have the youth “read” the track story. *The Peterson Field Guide to the Tracks* is one source for creating your own scenarios.

Simplify for Younger Children:

Begin the session with Marlene Hill Donnelly’s children’s book, *Big Tracks Little Tracks: Following Animal Prints*.

HELPFUL HINTS

If the group will be looking at actual tracks in the field, it is helpful to discuss what they are seeing. This involves discussing how animals move. For example, ask what a rabbit’s tracks would look like as he hopped along. Tell the youth that a rabbit hops by moving the front legs and then the back. The back feet actually track or “register” in front of the front feet. Have the youth try hopping like a rabbit and imagining the tracks that their feet would leave. A dog, in a normal trot, moves two legs on the same side of its body at once (right legs move, then the left). This gives the tracks they leave a characteristic pattern.

Reviewed by Wisconsin 4-H Afterschool Team: April 2005.