

# Nature's Footprints



**Life Skill:** Critical thinking

**Project Skill:** Identifying animal tracks and making plaster casts

**Objective:** Keep detailed records of observations and make judgments based on prior experience and record examination

**Success Indicator:** Participants can cast and identify a variety of wildlife tracks

## Provisions Needed

- Strips of cardboard, 2½" wide and 12 to 15" long
- Paper clips
- Mixing stick
- Plaster of Paris mixture (can be purchased at hardware stores and hobby shops)
- Container for mixing
- Small paintbrush with soft bristles to remove debris
- Vegetable shortening or petroleum jelly
- Paper
- Pen



## Trailhead

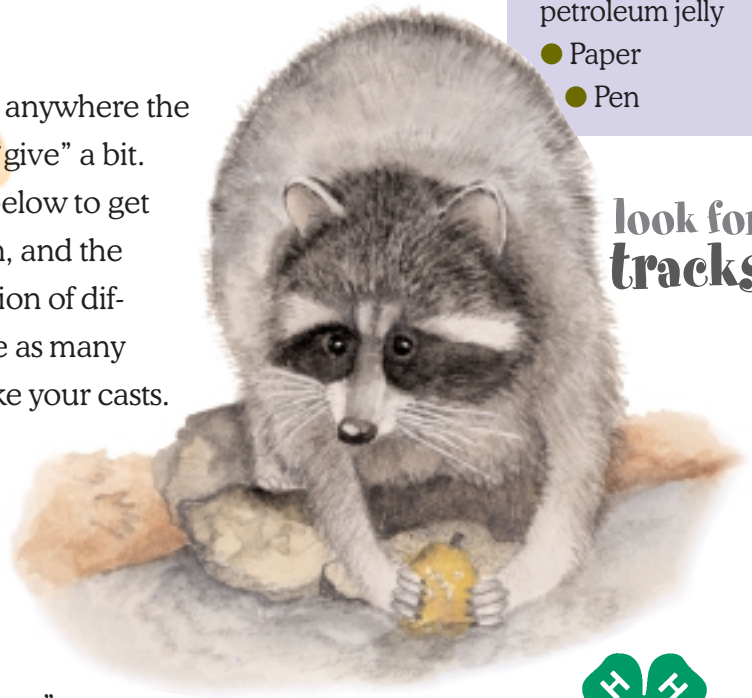
You are walking in a wooded area beside a stream when you see what appear to be small handprints on the ground. Has a little child been crawling in the mud? That's the impression some people get when they see raccoon tracks for the first time. You can discover a world of hidden wildlife by reading the "signatures" that animals leave behind. With careful observation and the right resources, you can learn where to find tracks and how to identify them. You can also discover how to preserve animal tracks to collect and study later.



## Trailblazing

The best place to look for tracks is anywhere the ground is bare and soft enough to "give" a bit. Review the tips in the "Field Guide" section below to get ideas on where to look. Take a notebook, pen, and the materials you need to make a plaster impression of different tracks. When you find tracks, first make as many observations and notes as you can. Then make your casts. You can put all the information together later to learn more about the animal.

Look for a track deep and clear enough for a good reproduction. Carefully remove any sticks and debris from the track with your fingers or the paintbrush. Make a circular "fence" around the track with the cardboard stood on edge, using the paper clips to close



look for tracks



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## Suggested Reading

- Murie, Olaus J. *A Field Guide to Animal Tracks* (Peterson Field Guide Series). Boston: Houghton Mifflin. 1975
- Rezendes, Paul. *Tracking and the Art of Seeing: How to Read Animal Tracks and Signs*. Charlotte, Vt.: Camden House Publishing. 1992.
- Whitaker, John, Jr. *The National Audubon Society Field Guide to North American Mammals*. New York: Alfred A. Knopf. 1980.

the ends in a circle. Press the cardboard ring into the ground without disturbing the track. Mix the plaster according to the package directions. The mixture should be smooth, like pancake batter. Tap the sides of the container to remove any air bubbles. Gently pour the mixture inside the ring, letting it run into the track. Fill the ring to within 1 inch of the top. Once the plaster is dry, carefully lift the cast and remove the cardboard. You have made a **negative**—or reverse—cast of the animal track.

## make a negative cast



Use the negative cast to make a replica of the original track.

At home, you can make a **positive** cast that will look the same as the track on the ground. You will need the negative cast, vegetable shortening or petroleum jelly, and the materials you used in the field. Cover the negative cast with a thin layer of shortening or jelly. Place the cast, greased side up, on a level surface. Form a cardboard ring tightly around the negative cast, leaving at least 2 inches of cardboard above the cast. Mix the plaster and pour it into the cardboard ring to within 1/2 inch from the top. When it is completely dry, carefully lift it off the negative cast and peel away the cardboard. You now have a replica of the original track. You can paint the impression of the positive cast so the animal track really stands out.

What type of animal made the track or tracks that you found? Look through resource books on animal tracks. You might also ask someone who is experienced with wildlife to advise you. Combine all your observations to help you decide.



## Field Guide

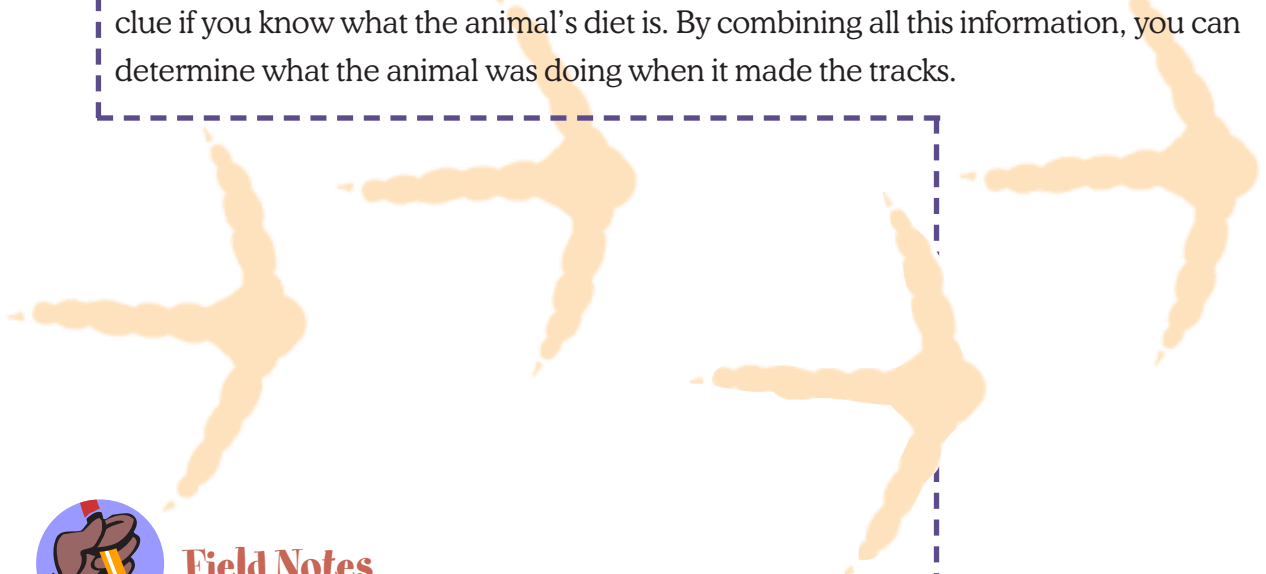
Every animal has a special place where it likes to live, or its **habitat**. A habitat is an area that provides an animal with required food, water, shelter, and space. If you know what animals live in the habitat you're exploring, you'll already have an idea of whose tracks you might expect to find. Edge areas, or places where two different habitats meet, are excellent places to find animal tracks. For example, where a pasture or field meets a forest would be an edge. This edge would be a good place to find the tracks of animals, such as deer and turkey, that feed in open areas close to forest cover.

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## The Extra Mile

If you find more than one track from the same animal, try to determine the creature's **gait**. The gait—how the animal moves (for example, walking, running or trotting)—is often used to identify tracks. Notice the shape of the track and the distance between tracks. Look for other signs of animals, such as food remains, claw marks, or trails through the underbrush. **Scat**, or the feces of animals, is another good clue if you know what the animal's diet is. By combining all this information, you can determine what the animal was doing when it made the tracks.



## Field Notes

### SHARE

- What types of tracks were easiest to cast? Which were most difficult?
- What made most of the tracks you observed?

### PROCESS

- How can you tell the difference between a partial track and an indentation left by fallen twigs or other debris?
- What are some other ways that you could record an animal track?
- How were you able to identify with confidence partial tracks or ones that lacked perfect detail?

### GENERALIZE

- What other times have you had to put a lot of pieces of information together before reaching a conclusion?

### APPLY

- How could you display your collection of tracks and observations so that other people could learn about the animals common to your area?