

GRADE: K-Adult
TIME: ½-1 hour
SEASON: All

ANIMAL TRACKS

National Science Teaching Standards

- A. Science as INQUIRY**
- C. LIFE Science**

OBJECTIVE:

Students will become aware of animals found at Springbrook by making plaster casts of animal tracks found in the area.

Pre Activity:

Examine the Common Iowa Wildlife Tracks sheet. Using the internet/other library reference materials research the animals on the track sheet finding: habitat, size, food, etc.

EQUIPMENT:

- Plaster of Paris
- water
- plastic water jugs (cleaned out milk jug or bleach bottle work well - bleach bottles are stronger material)
- gallon size zip lock bags
- laminated sheet of Common Iowa Wildlife Tracks (for each student/group of students)

SET UP:

Put 3 cups of Plaster of Paris into 1 gallon size zip lock bag - this amount will make approximately 4 tracks. Fill plastic jugs with water. (This will be done by Springbrook)

INTRODUCTION:

Create interest by telling students they have been hired to scout the area, looking for evidence of animal life in a particular habitat (forest, grassland, pond, or stream).

PROCEDURE:

1. Put students into groups of 3-5. Hand out Tracks sheet to each student/group and briefly review sheet together.
2. Give each group one bag of plaster and one jug of water.
3. Inform students instructions below then let them begin:
 - a. Scout the area looking for animal tracks. (The group should try to find their tracks within close proximity to each other so the plaster will not dry out before they get their tracks filled.)
 - b. When each student in their group has found a track, remove any sticks, leaves, loose dirt, etc., from the track so the track is as visible as possible. Have student build a dam of dirt around the track, which will help hold the plaster in a contained space instead of spreading out as it is poured into the track.

- c. Once at sight of the chosen tracks, have group slowly pour a little water into the bag of plaster. Close bag and squish bag to mix the plaster and water to a pancake batter consistency. Add more water, little by little, if need to reach the consistency.
- d. Pour the mixture into your track. Have students use a small stick to gently poke it around the poured plaster to bring up any air bubbles and to allow the plaster to flow into the smaller parts of the track.
- e. Once the group has filled their tracks, have them go back to the first one to etch their initials into the plaster and, VERY IMPORTANT, have them look around where they are so it will be easier for them to find their spot again when they return to pick up their track. (The Plaster should be slightly set to do this. If not, have student mark their spot with poking a stick in the ground near their track.)
- f. Throw used zip lock bag away after use and return water jug to classroom.

2. **Let track set for at least one hour.**

3. When track is set, remove it from the dirt by digging up to the ground around the track. If you pry on the track, it may break. Try not to wash track clean for 2-3 days.

Post Activity

- The plaster cast that comes off the track is a "negative" impression of the track in the ground. To get a true impression, let the negative dry thoroughly for one to two days, then surround it with a 3" cardboard collar, coat the negative with Vaseline or spray with Pam and apply a fresh coat of plaster, mixed as before. The new impression will be a duplicate of the one in the ground. (Shave off any overlapping plaster with a sharp knife before lifting the negative - otherwise the cast may break.)
- Set up a "track museum." Have students make a label for "specimen" putting animal name, where found, date, and "scientist's name" on label. Put the labeled tracks on a table for display (museum) for classmates to see.

Post Discussion:

- Have students show their tracks to the rest of the class, describing the animal that made them.
- Where were your tracks found? What did that tell you?
- Could you tell the direction your animal was moving? Where did you think it might be going?
- Were there any other clues left at the sight of your track? What do you think they were telling you?
- What do you think the population of your animal is at Springbrook State Park? Why?
- Listening to information about other tracks that were found in the are; where does your animal fit into the food chain in the park?