

# Cast a Track

*Adapted with permission from  
Wetlands & Wildlife*

**Grade Level:** all levels

**Duration:** throughout field trip, with at least 20 minutes for the cast to harden in the field, plus 35 minutes back in the classroom to finish the cast

**Skills:** application, comparison, observation

**Subjects:** science and fine arts

## Concepts

- Bridge the classroom and the local environment.
- Gain firsthand knowledge through an outdoor experience.
- Discover the ecosystem through multisensory experiences.
- View shorebirds, their habitats, and what they eat.

## Vocabulary

There is no specific vocabulary for this unit.

## Overview

Students look for shorebird tracks while on their field trip and then “collect” one that they find, using a plaster casting technique.

## Objectives

After this activity, students will be able to:

- Identify a bird track.
- Give examples of good locations to find shorebird tracks.
- Make a plaster cast of a shorebird track.

## Materials

- Bird tracks in the field
- Copies of the Cast a Track handout (located here) for each student or student team or included in the Shorebird Field Journal your students use
- One plastic Ziploc bag with the pre-measured amount of Plaster of Paris to make one cast for each team

- Fresh water (approximately one liter, depending on size of class)
- One empty plastic jar

- One small, plastic soda bottle for each team, with the bottom cut out.
- Forceps
- Toothbrush or knife

## In the Classroom

- Petroleum jelly
- Shellac

## Optional

- Plaster of Paris for a “reverse” cast
- Dark-colored paint

## Introduction

There is no introductory information for this activity.

## Procedure

1. Fill a tin of sand and press your hand in it to make a “track.” Demonstrate the following procedures as you explain how to “collect” an animal track in the field.
  - Look for bird tracks. Good places to look are areas of damp mud near ponds and streams or along the beach at low tide.
  - Draw in your journal all wildlife tracks that you find, and try to identify the birds or animals that made them.
  - When you find a good track, carefully remove any sticks and leaves from it. In snow, spray the track with a fine mist of water and let it freeze.
  - Mix enough water with the pre-measured plaster to make a thick batter. If the track is in snow, mix snow with the water before you mix up the batter. This cold batter will be less likely to melt the snow and ruin your track.

- Press your soda bottle ring into the sand, soil, or snow surrounding the track.

- Pour the batter inside and on top of the track.

- Wait for the plaster to completely harden (at least 20 minutes). Then lift up the casting and carefully clean away dirt or sand with a toothbrush or knife. Remember to collect your ring to reuse or recycle later.

2. Have students work in teams of threes or fours to collect a track they find in the field.
3. Back in class, have each team shellac its original track to protect it from scratches and moisture. They can also create a reverse track. Coat the original plaster track with petroleum jelly or non-stick spray, then repeat the above steps as if the casting were a track. To make the reverse track easier to see, paint the inside with a dark color.

## Additional Activity

### *More on Wildlife Signs and Tracking Techniques*

Ask students to consider other “signs” animals leave behind other than tracks. What might they find in the field that tells them shorebirds are nearby? What might they hear? Invite a local outdoors person to give a classroom presentation on observing wildlife signs and tracking. Invite that person to accompany your class on your field trip.



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