1. KNOW TEN KINDS OF TRACKS, INCLUDING TWO KINDS OF BIRD TRACKS. MAKE PLASTER CASTS OF FIVE.

**Basic Casting Techniques**

You will need dry Plaster of Paris, Water, A Mixing container, A mixing stick and something to make rings out of. Plaster of Paris can be bought either dry or ready-mixed.

Dry type would be best to mix on site. It needs to be soupy to make a detailed cast.

When you find a suitable track, place a ring around it. Ring can be made from a large tin can cut out, a paper cup with the bottom cut out, a strip of poster board 4m wide and taped together at ends to form a circle, etc... Be sure the ring is larger than the track, note some tracks are larger than 15cm or more. Place ring in place mix just enough plaster and water to fill the ring up to 2.5cm deep. It sets quickly, stir till smooth same as pancake batter. Pour in ring.
CASTING TRACKS IN SNOW

Identification

It’s not nearly as firm as mud. Plaster generates heat when mixed. It will melt the snow around the track. You must be careful. For Powdery snow spray water on it. Don’t over do. Allow water to freeze, making a harder surface. Place ring around track. Store powdered plaster outside to keep cold. Use cold water to mix and add more snow. Stir snow around till water really cold. Once plaster is mixed pour it in the ring, but not directly on the track.

It is best to know what kind of animal tracks you are looking for. It is good to know the habits of that animal. Where it lives and time of day it is active, etc. (track guide at the end)

When you find tracks take lots of pictures, be sure to disable your flash.
Where found: North America
Description: Raccoon is a nocturnal Mammal in the genus Procyon of the Procyonidae family. They are unusual for their thumbs, which enable them to open many closed containers as garbage cans and doors. They are intelligent omnivores with a reputation for being clever and mischievous.
Range for 50 to 100 cm in length weigh between 4.5 to 16 kg. Tail 20 to 40 cm in length Males are larger than females
Order: Lagomorpha  
Where Found: Many parts of the World  
Description: There are several types of Rabbits leaving this type of track. The prints in the front is the hind legs while the forefeet leave the two aligned prints in the rear.
Where Found: Deer are widely distributed and hunted.
Description: A deer is a ruminant mammal belonging to the family Cervidae. Male deer grow and shed new antlers each year. The deer that left the scat depicted above had been eating food high in water content, causing the dung to clump together. When the diet consists of drier foods, the dung forms pellets similar to moose, just smaller.
Where found: Moose inhabit boreal and mixed forests climates.
Description: Moose is the North American name for the largest extant species in the deer family. They are called Elk in Europe. They are distinguished by the palmate antlers of the males; other members of the family have twig-like configuration.
An adult Moose stands 1.8 – 2.1m. Males weigh 380-535kg, females 270-360kg. Their prints are as large as 12-20cm long.
Where Found: There are 8 living species of bear. They are widely spread, appearing in a wide variety of habitats through the Northern Hemisphere.
Description: They have a large body with stocky legs, a long snout, shaggy hair, paws with five nonretractable claws, and a short tail.
Polar bears mostly carnivorous and the giant panda feeds entirely on bamboo, the remaining six species are omnivorous, with largely varied diets including plants and animals.
Beaver tracks in snow, in Ontario. Hind paws approx. 20 cm long.

Where found: Native to North America and Europe.

Description: Beavers are known for their natural trait of building dams in rivers and streams. And their homes in ponds. They cause big changes in their environments from building ponds and lodges with cutting down large trees and storing young branches in the mud.
Coyote (*Canis latrans*)  
Dog (*Canis lupus domesticus*)  
Wolf (*Canis lupus*)

Description: Tracks left by the canine family are extremely difficult to tell apart. Four toes and a pad track.
Description: The Standard house cat. They have retractable claws, retract them from when they walk.
Lynx and Bobcats

Description: Lynx have short tails and characteristic tufts of black hair on the tip of the ears. They have a ruff under the neck. Large claws padded for walking on snow and long whiskers of the face. Body colors varied from brown to grey with some black.
Mouse
Description: House mice has an adult body length 7.5 – 10cm tail length 5-10cm weigh 10-25g. Light brown to black with short hair and light belly. Hind feet short, droppings are blackish 3mm long with strong musty smell. High pitch squeak voice.

Horse
Where found: Domesticated worldwide
Description: Horse is a large odd-toed ungulate mammal. For centuries they are the most economically important domesticated animals, for framework and transportation

Squirrels and Chipmunks
Where found: Sciurids live in almost every habitat.
Description: Hind limbs are longer than the fore limbs. 4 toes on forefeet and five on hindfeet include thumb, with a soft pad.

Puma - Mountain Lion
Where found: Wild terrestrial mammal in the Western Hemisphere including Yukon in Canada.
Description: A capable stalk-and-ambush predator, Cougar pursues a wide variety of prey. Primary food sources include deer and bighorn sheep as well as domestic cattle.
Opossum
Description: They are small to medium-sized marsupials as the largest size as a house cat and small as a mouse. Feet flat hind feet opposable digit with no claw.

Porcupine
Where found: Mixed forest areas in Canada
Description: Usually dark brown or black, with white highlights. Their upper parts are covered with thousands of sharp, barbed hollow spines or quills used for defense. They are active mainly at nights in summer. Often rest in trees. Eat twigs, root stems, berries and other vegetation in summer. In winter they hibernate. Tracks are distinctive with five toes printing on the hindfeet and four on the forefeet.

Skunk
Where found: Most North American continent north of Mexico
Description: The striped skunk has a black body with white stripe alone each side of its body. The size of a house cat weighs 4 to 14 pounds (2.7-6.3kg) body length 13 to 18 inches (33-46 cm) bushy tail 7-10 inches long (18-25 m) Appearance is made by its odour. Feeds on mice, eggs insect, grubs and berries

Turtles
Description: Are reptiles of the order testudines
Description: Snakes leave tracks wavy or straight. Prints are furrows and half inch wide. They shed as they grow.

Garter snake

Shed skin of a snake
Lithobates catesbeianus (American Bullfrog)

Where found: From tropics to subarctic regions.

Description: Adult frog has long hind legs, a short body, wedded digits, protruding eyes and no tail. They lay eggs in puddles, ponds or lakes. Little ones call tadpoles have gills and develop in water.

American Toad

Rana clamitans (Green Frog)

Green frog, hind foot print
BIRDS

CROWS AND RAVENS

Common Raven

- Where found: On all continents
- Description: They are large black all over or mainly black with white or grey patches.
- Crow has three toes that point forward and one that points backwards. The front middle toe curves inward and like the rear toe, is longer than the two on the side. Tracks 5-8 cm long and 10 cm apart.
Where found: Widely distributed through North America, wintering south of Canada from Florida to central Mexico and along the specific Coast

Description: They are active during the day assembles in large flocks at night. Eats beetles, caterpillars, fruits and berries. Lays eggs.
PIGEONS AND DOVE

- Where found: Worldwide
- Description: Consistitute the family Columbidae. 300 spieces. Best place to find their tracks is beneath and overpass

Blue Rock Pigeon
Description: Native of North America. Breeds in Canada and Northern USA. Nest in an elevated area near water

Canadian Goose
Duck
Description: They are aquatic birds, smaller than swans and geese and may be found in fresh and sea water.

Grouse
Description: Year round residents do not migrate. Feed on vegetables and insects. They are heavily built with legs feathered to the toes.

Turkey
Where found: North America
Description: Adult wild turkey have a small, featherless reddish head that can change to blue in minutes. A red throat in males, long reddish-orange to greyish blue legs and a dark brown to black body. They print three of their four toes.
2. NAME AT LEAST THREE THINGS THAT TRACKS TELL US.

The species
Its direction of travel
How fast it was going
How large it was
How long ago the animal made the tracks.
Sometimes tracks can tell the gender of the animal
Sometimes tracks can tell us the animal's age

3. Trail some animal tracks, identify the animal if possible, and tell whether it was running or walking. Measure between the tracks of one animal when running and walking.

Trailing and Identifying

Hiking or camping, bring a tape measure for tracks. Etc.

Walking vs Running

If tracks are far apart relative to the size of the animal it might have been running.

Measuring Tracks

Measure the distance between tracks made by the same foot. The distance between the left rear and the right front is almost meaningless.
4. MAINTAIN A TRACKING STATION FOR AT LEAST THREE DAYS BY DOING THE FOLLOWING

a. Select a flat open space in some quiet place near your camp or home.

b. Smooth out ground, mud, sand, etc.

c. Place food out for wildlife.

d. Check each day for tracks and replenish food when necessary.

5. Name two animals for each tracking group.

   a. Flatfoots – Bears, Raccoons, Porcupines and Skunk.

   b. Toe walkers-Dogs, cats, Wolves and Coyotes

   c. Toenail walkers-Deer, Antelope, Moose, cattle & Horses.

   d. Bounders or long hindleggers-Rabbits, Squirrels, Mice and rats.
7. Distinguish between rabbit and squirrel tracks, and between dog and cat family tracks.

**Rabbit vs Squirrel Tracks**

- They leave a distinctive pattern when they bound. Front feet is thrown between the hind feet.

**Dog vs Cat Tracks**

- Unlike dogs, cat can retract their claws when walking. Dog tracks are larger than cats.
8. Name two groups of animals (mammals, birds, insects, etc.) that leave tracks or scent trails that another of their kind can follow.

9. Name two birds for each of the following type of tracks.
   a. Hopping
   Most perching birds. Tracks are side by side.
   b. Walking
   Crows, most water fowl and shore birds, some game birds. Track alternate left to right as they lift their feet one at a time.

10. Besides tracks, give two other signs of the presence of birds.
   - Feathers
   - Droppings
   - Nests
   - Birdsongs (if you can hear them, they must be present!)
   - Eggs or eggshells
   - Pellets: Birds of prey regurgitate the indigestible portions of their meals. Birds have no teeth so they rip their prey apart with their beaks and swallow large chunks at a time.
11. NAME TWO BIRDS IDENTIFIED BY THEIR FLYING PATTERNS.

Northern Flicker: Like many woodpeckers, the flicker's flight is undulating. The repeated cycle of a quick succession of flaps followed by a pause creates an effect comparable to a rollercoaster.

Hummingbird: During hovering, ruby-throated hummingbird wings beat 55 times per second, 61 times per second when moving backwards, and at least 75 times per second when moving forward.
12. In your area, observe tracks or trail of one or more of the following

a. Toad or frog  b. Snake  c. Turtle  d. Mollusk  e. Earthworm  f. Mole

As previously spoken of.

Snails and slugs are members of the mollusk family. They leave easily followed trails. You can find them in the early mornings.

Earthworm is found where the earth is bare. Worms need air.

Moles are burrowing rodents.
Animals Don't Cover Their Tracks

Track Guide

By Kim A. Cabrera

www.bear-tracker.com

Tracks not to scale

Page 1 of 3

All drawings © Kim A. Cabrera

Black Bear

Bobcat

Caribou

Mountain Lion AKA Cougar

Deer

Domestic Dog

Elk

Badger

Bison AKA Buffalo

Bighorn Sheep

Bald Eagle

Beaver

Coyote

Fisher

Lynx

Moose

Great Blue Heron

Horse (Shod and unshod)

Grizzly Bear

Domestic Goat

Front track on left, hind track on right; for birds, left and right are shown

7 in. L x 5 in. W

8 in. L x 6 in. W

2 in. L x 2.5 in. W

3 in. L x 2.5 in. W

5 in. L x 2.5 in. W

3.5 in. L x 3.5 in. W

3.25 in. L x 3 in. W

3 in. L x 3.75 in. W

Size varies

4.75 in. L x 3 in. W

5 in. L x 2.5 in. W

3 in. L x 2.5 in. W

4-6 in. L

3 in. L x 3 in. W

3 in. L x 3.75 in. W

6 in. L x 4.5 in. W

3 in. L x 2.75 in. W

5 in. L x 3.5 in. W

2.5 in. L x 2.25 in. W

3.75 in. L x 4.25 in. W

3 m. L x 3.25 in. W

4 in. L x 3.75 in. W

3.75 in. L x 4 in. W

6 in. L x 4 to 5 in. W

5-6 in. L

13.5 in. L x 8.75 in. W

14 in. L x 8.25 in. W

3 in. L
# Animals Don't Cover Their Tracks

**Track Guide**

*By Kim A. Cabrera*

Front track on left, hind track on right; for birds, left and right are shown.

<table>
<thead>
<tr>
<th>Animal</th>
<th>Track Width</th>
<th>Track Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wild Turkey</td>
<td>3.5 in x 4.25 in W</td>
<td>5.25 in W</td>
</tr>
<tr>
<td>Gray Wolf</td>
<td>5.25 in x 3.25 in W</td>
<td>2.25 in W</td>
</tr>
<tr>
<td>River Otter</td>
<td>2.5 in x 3 in W</td>
<td>3 in W</td>
</tr>
<tr>
<td>Gray Squirrel</td>
<td>1.25 in x 1.25 in W</td>
<td>2.25 in W</td>
</tr>
<tr>
<td>Opossum</td>
<td>2.5 in x 2.5 in W</td>
<td>1.5 in L</td>
</tr>
<tr>
<td>Domestic Cow</td>
<td>1.75 in L x 1.34 in W</td>
<td>1.75 in L</td>
</tr>
<tr>
<td>Domestic Sheep</td>
<td>2 in x 2 in W</td>
<td>2.5 in W</td>
</tr>
<tr>
<td>Marten</td>
<td>2.75 in x 1.75 in W</td>
<td>2.5 in W</td>
</tr>
<tr>
<td>Wolverine</td>
<td>4 in x 3.5 in W</td>
<td>3.75 in L x 3.75 in W</td>
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<tr>
<td>Armadillo</td>
<td>1.5 in W x 1.25 in W</td>
<td>2 in L</td>
</tr>
<tr>
<td>Striped Skunk</td>
<td>2 in x 1.5 in W</td>
<td>3.5 in</td>
</tr>
<tr>
<td>Frog</td>
<td>2.75 in x 1.25 in W</td>
<td>7/16 in L x 1.2 in W</td>
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<td>Porcupine</td>
<td>1.75 in L x 1.22 in W</td>
<td>2.75 in L x 1.75 in W</td>
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<td>Marmot</td>
<td>2.5 in L x 1.25 in W</td>
<td>2.75 in L</td>
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<tr>
<td>Lizard</td>
<td>2.5 in L x 1.4 in W</td>
<td>2.75 in L</td>
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<tr>
<td>Aplodontia (AKA Mountain beaver)</td>
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<td>2.5 in L</td>
</tr>
<tr>
<td>Duck</td>
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</tr>
<tr>
<td>Chipmunk</td>
<td>1.25 in L x 1.25 in W</td>
<td>1.75 in L</td>
</tr>
</tbody>
</table>

[Tracks not to scale](www.bear-tracker.com)

All drawings © Kim A. Cabrera
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Front track on left, hind track on right; for birds, left and right are shown

<table>
<thead>
<tr>
<th>Animal</th>
<th>Track Description</th>
<th>Track Measurements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quail</td>
<td></td>
<td>1.5 in. L x 1.75 in. W</td>
</tr>
<tr>
<td>Brush Rabbit</td>
<td></td>
<td>1.5 in. L x 1 in. W</td>
</tr>
<tr>
<td>Raccoon</td>
<td></td>
<td>2.5 in. L x 2.5 in. W</td>
</tr>
<tr>
<td>Mountain Goat</td>
<td></td>
<td>3.5 in. L x 3.5 in. W</td>
</tr>
<tr>
<td>Raven</td>
<td></td>
<td>3.75 in. L x 2 in. W</td>
</tr>
</tbody>
</table>

Sapsucker feeding sign — "wells" on a tree

Snake track

Musk Rat

Caterpillar Tracks

Pileated Woodpecker feeding sign — large round or oblong holes in dead tree trunk.

Use the space below to make drawings of common tracks found in your area. Drawing tracks is the best way to learn their shapes.
THE END!

District Coordinator Master Guide: Marcia Martin Thomas
We would like to thank Instructor **Marcia Martin Thomas** for an excellent honor presentation! It would be impossible for us to continue our operation without volunteers like you. May God bless you!

www.ClubMinistriesAcademy.com