

OTHER RESOURCES:

Gadd, Ben. *Handbook of the Canadian Rockies*. Jasper: Corax Press. 1987.

Giles, Robert H. Jr. (ed.). *Wildlife Management Techniques*. Washington: The Wildlife Society. 1971

Murie, Olaus J. *A Field Guide to Animal Tracks*. Boston: Houghton Mifflin and Company. 1974

Sheldon, Ian. *Animal Tracks of the Rockies*. Edmonton: Lone Pine. 1997

Stokes, Donald W. *A guide to Nature in Winter*. Toronto: Little, Brown and Company. 1976

Stokes, Donald W. and Lillian Stokes. *A Guide to Animal Tracking and Behaviour*. Toronto: Little, Brown and Company. 1986.

Wooding, Frederick H. *Wild Animals of Canada*. Toronto: McGraw-Hill Ryerson Limited. 1982

Especially For Children

Owl, Chickadee, Ranger Rick, National & International Wildlife, and National Geographic magazines contain excellent articles and photographs on animals.

March 2002
Pub. No. I/595
ISBN 0-7732-5018-0

PARKS AND PROTECTED AREAS

IT REMAINS TO BE SEEN: A LOOK AT ANIMAL SIGNS


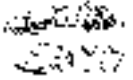








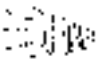


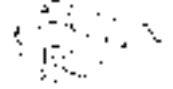
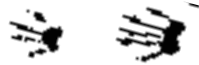



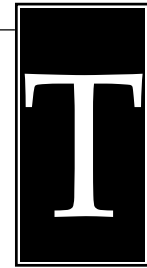
TAKE HOME BOOKLET

Alberta
COMMUNITY DEVELOPMENT

Kananaskis Country

See if you can match the scat and the track with the name of the animal. The scats and tracks are not drawn to scale. The answers are on page 22 of this booklet.

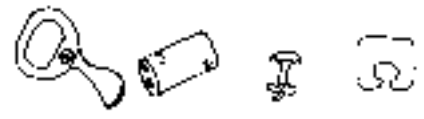
	BEAR	
	BEAVER	
	COYOTE	
	ELK	
	PORCUPINE	
	RED SQUIRREL	
	SNOWSHOE HARE	
	WHITE-TAILED DEER	



This *Take-home* booklet will help you identify some of the animal signs you may have discovered here in Kananaskis Country. Animal signs are traces or clues that animals leave behind which tell you what they've been doing. For example, if you found a sign on a muddy beach which looked like this:



you would know that a human had been around. If you looked at the sign more closely, you might be able to tell how big the person was, which way they were going and maybe even how fast they were traveling. Signs like these on the ground








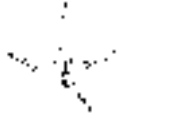



would also tell you a person had been around. Upon closer inspection, you could tell what sort of food that person had eaten and maybe even how long ago it was eaten. By being observant, you can find out something about that person without ever seeing him or her.

We can find out about other animals in the same way. We are often lucky enough to view animals, yet even if we don't see them, we can still know they are around by the signs they leave behind. The trick is to be able to recognize and read these signs.

This booklet will help you in your investigations of animal signs. Use it here and then take it home with you to use when you go for other hikes. This booklet also provides space to complete the activities recommended in the *It Remains to be Seen Activity Booklet*. There are also puzzles for you to do at home.

TRAVEL SAFELY AND HAVE FUN!

ANIMAL	SIGN	GENERAL INFORMATION
<p>NORTHERN POCKET GOPHER <i>Thomomys talpoides</i></p>  <p>23 cm long including tail</p>	 <p>Look for piles of freshly dug earth. A small plug, covering the hole entrance, can sometimes be seen.</p>	<p>Pocket Gophers are seldom seen, but their piles of excavated dirt are easily recognized. They eat the roots and shoots of flowers. They have external cheek pouches, and lips which close behind their teeth to keep the dirt out as they dig.</p>
<p>GREAT HORNED OWL <i>Bubo virginianus</i></p>  <p>50 cm long</p>	 <p>4-11 cm long Owl pellets are regurgitated bundles, made up of the bones and fur of the owl's prey.</p>	<p>Owls are most active at night when they hunt for rodents, hares and birds. The Great Horned Owl is one of the largest of the owls in this area. Listen for its deep hoo, hoo-hoo-hoo, hoo call.</p>
<p>COMMON FLICKER <i>Colaptes auratus</i></p>  <p>27 cm</p>	<p>nest hole</p> 	<p>Look for the nest hole of the Flicker which is approximately 5 cm in diameter and is located 3-10 metres off the ground in a dead tree. Flickers prefer open forests. They eat ants or insects found on or under the bark of trees.</p>
<p>RUFFED GROUSE <i>Bonasa umbellus</i></p> 	<p>foot</p>  <p>scat</p> 	<p>Known by its mating or drumming call in the spring: Put-put-put-put-purr! and its loud flutter of wings when startled. Grouse browse on buds, leaves and twigs. In winter they bury themselves entirely in snow to keep warm.</p>

1.			2.			3.		4.			5.			6.
7.					8.					9.				
		10.			11.									
	12.						13.							
14.										15.				
		17.				18.							19.	
20.						21.								
						22.				23.				
24.														
26.										27.				





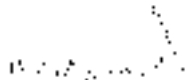




Answers are on page 22 of this booklet.


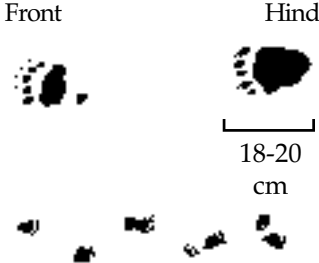


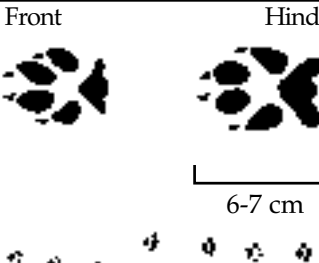
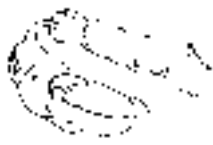

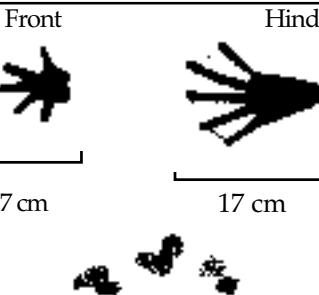


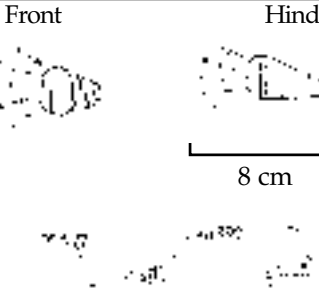

ACROSS

1. Elk, bear, squirrels and coyotes are a few types of _____.
4. Bears find these useful for digging up food.
7. A body of water associated with beavers.
8. Animal whose fur turns white in winter and is called the Snowshoe _____.
9. A beaver lodge and an ant hill are types of animals' _____.
10. A bird's home.
12. A coyote or bear's home.
13. Bony structure found on elk and deer.
14. Bears _____ trees in order to mark their territory.
15. Large member of the deer family, often seen in herds.
18. Animals which build dams and lodges.
20. Small relative of the elk.
22. Signs of woodpecker activity.
24. Seeing an animal often is _____, but finding signs is common.
25. Small animal with 6 legs, common in summer.
26. Used to make casts of animal tracks.
27. Home of these numerous, ground-dwelling insects.

DOWN

1. Favourite food of elk.
2. Squirrel's refuse pile.
3. Droppings left behind by various animals.
4. Beavers have to do a lot of _____ to chop down trees.
5. Bird with a strong beak.
6. Thin, papery home of one type of insect.
10. Tracks are easy to find in muddy areas _____ water.
11. One type of animal sign.
14. Not an insect because of two body parts and 8 legs.
16. Elk and deer droppings are _____-shaped.
17. Large animal whose tracks have claw marks visible.
19. One of the ways tracks are identified is by _____.
21. Tracks are also identified by _____.
23. What this crossword puzzle is all about: animal _____.

ANIMAL	SIGN	GENERAL INFORMATION
<p>ORB-WEAVER SPIDER <i>Tetragnatha spp.</i></p>  <p>up to 10 mm long</p>	 <p>Web</p>	<p>Webs are spun with silk which is produced by the spider. The webs are used to capture prey such as insects which the spider then paralyzes with venom. Spiders are very helpful in controlling insect populations.</p>
<p>RED ANTS 5-10 mm</p>  <p>CARPENTER ANTS up to 20 mm</p>	 <p>carpenter ant galleries</p>  <p>ant hill</p>	<p>Red ants build their nests in the ground. They carry the grains of soil to the surface and deposit them in a pile. Carpenter ants build their nest in old logs. The tunnels made by the ants provide homes for the colony and a place to raise their young.</p>
<p>CATERPILLAR</p>  <p>up to 50 mm</p>	 <p>chewed leaves and cocoons</p>	<p>There are many types of caterpillars and other animals which are responsible for chewing leaves in the forest. See if you can discover which caterpillars are responsible for chewing the leaves you find.</p>
<p>A variety of insects are responsible for the formations of galls on the stems and leaves of plants. For example, aphids form Spruce galls and a type of wasp forms the Rose gall.</p>	 <p>Rose gall</p>  <p>Spruce gall</p>	<p>Galls are swellings, growths or discolourations on leaves and stems of plants. Somehow the insect disrupts the normal growth of the plant and the plant grows around the insect. The gall provides the insect with food and protection.</p>

ANIMAL	TRACK	SCAT
BLACK BEAR <i>Ursus americanus</i>  males 160 cm long	Front Hind  18-20 cm	 During the berry season, bear scat often looks more like cowpies full of berries. The scats shown above are approximately 3.5 cm in diameter.
COYOTE <i>Canis latrans</i>  120 cm long including tail	Front Hind  6-7 cm	 8.5 cm Coyote scats are often filled with small bones and hair.
AMERICAN BEAVER <i>Castor canadensis</i>  105 cm long including tail	Front Hind  7 cm 17 cm	 3-5 cm
PORCUPINE <i>Erthizon dorsatum</i>  77 cm long including tail	Front Hind  8 cm	 2.5 cm

See if you can find all the words hidden below. They may run forwards, backwards, horizontally, vertically, or diagonally. Circle the letters of each word carefully. When you have found all the words on the list, read through the word search from left to right, top to bottom and place all the unused letters you find in sequence in the spaces below. These letters will spell out a secret message. (Answer is on page 22 of this booklet.)






















- | | |
|-------------|-------------|
| ANIMALS | HOMES |
| ANTHILLS | INSECT |
| ANTLERS | MICE |
| BEAVERLODGE | MIDDEN |
| BONES | NEST |
| BROWSE | OWL PELLETS |
| BURROWS | PORCUPINE |
| COYOTE | REMAINS |
| DEER | SCAT |
| ELK (2) | SIGN |
| FEATHER | SOUND |
| FUR | SQUIRREL |
| GALLS | TRACKS |
| GAME TRAIL | TREE |
| GROUND | WEB |
| HOLES | WOODPECKER |

SECRET MESSAGE: _____ / _____ /
 _____ / _____ / ____ /
 _____ !

Unscramble these letters to discover the names of some of the animals you may have seen today, either in person or from their signs (answers are on page 22 of this booklet).

1. LEK
2. TILERATEWHIDEED (3 words)
3. DERIPS
4. AREB
5. EVBARE
6. NOREATGROWLHED (3 words)
7. PETARLIACLR
8. CEYOTO
9. CRINEPPUO
10. REHA
11. QRILESUR
12. GOOPKETHERCP (2 words)
13. TARDEN
14. RILEFCK

FOOD	HOME	GENERAL INFORMATION
<p>Plants include grasses, sedges, berries and nuts. Animals include ants, grasshoppers, fish, small mammals, and the decaying flesh of dead animals.</p>	<p>Found in wooded areas and alpine meadows. They den in any protected area such as a cave, under a log or in a hollow.</p>	<p>Bears like to scratch and rub up against trees. Look for claw marks on trees which have been used for this purpose.</p> 
<p>Coyotes hunt for small rodents and hares. They also scavenge for meat left by other animals, and eat some vegetable matter.</p>	<p>Coyotes can be found in open woodlands and in cultivated areas. They den in the ground or under other forms of shelter.</p>	<p>One way to tell a coyote from a dog is by watching it run. A coyote holds its tail down when it runs. Coyotes are mostly nocturnal (active at night). Listen for their yips and howls at night.</p>
<p>Beavers eat the bark and twigs of aspen, balsam, poplar, birch and willow.</p> 	<p>Look for the beaver lodge along stream banks or beside the pond formed by the beaver dam.</p> 	<p>Beavers are usually nocturnal. Listen for their loud warning tail-slap on the water. The ponds that beavers create with their dams provide homes for many types of plants and animals.</p>
<p>Porcupines eat buds, small twigs and the inner bark of trees. They are also very fond of salt and therefore chew axe handles, car tires or the salty leather of hiking boots left outside.</p>	<p>Porcupines are usually found in forested areas. They can sometimes be seen perched in trees. They den in hollow trees or caves.</p>	<p>Porcupines are most active at night. If you see trees with the bark stripped from the upper branches, it usually means that a porcupine has been feeding there.</p>

ANIMAL	TRACK		SCAT
<p>RED SQUIRREL <i>Tamiasciurus hudsonicus</i></p>  <p>31 cm lon including tail</p>	<p>Hind</p> 	<p>Front</p>  <p>5.4 cm</p>	 <p>1.0 cm</p>
<p>SNOWSHOE HARE <i>Lepus americanus</i></p>  <p>48 cm long including tail</p>	<p>Hind</p> 	<p>Front</p>  <p>25 cm</p>	 <p>1.0 cm</p>
<p>WHITE-TAILED DEER <i>Odocoileus virginianus</i></p>  <p>190 cm long</p>	 <p>5.0-7.5 cm</p> 		 <p>1.5-2.0 cm</p>
<p>MULE DEER <i>Odocoileus hemionus</i></p>  <p>180 cm long</p>	 <p>6.0-8.5 cm</p> 		 <p>1.5-2.0 cm</p>

Spider Web Patterns

Draw your spider web pattern here:

Haiku Poem

Write your Haiku poem here:

title _____

5 syllables _____



7 syllables _____



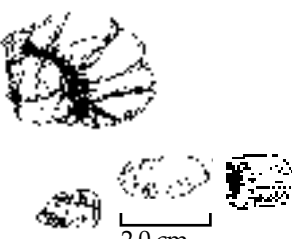
5 syllables _____

Score Card

first sign10 points
 each additional sign5 points

Player's Name	Player's Name
Signs	Signs
Points	Points
Player's Name	Player's Name
Signs	Signs
Points	Points
Player's Name	Player's Name
Signs	Signs
Points	Points

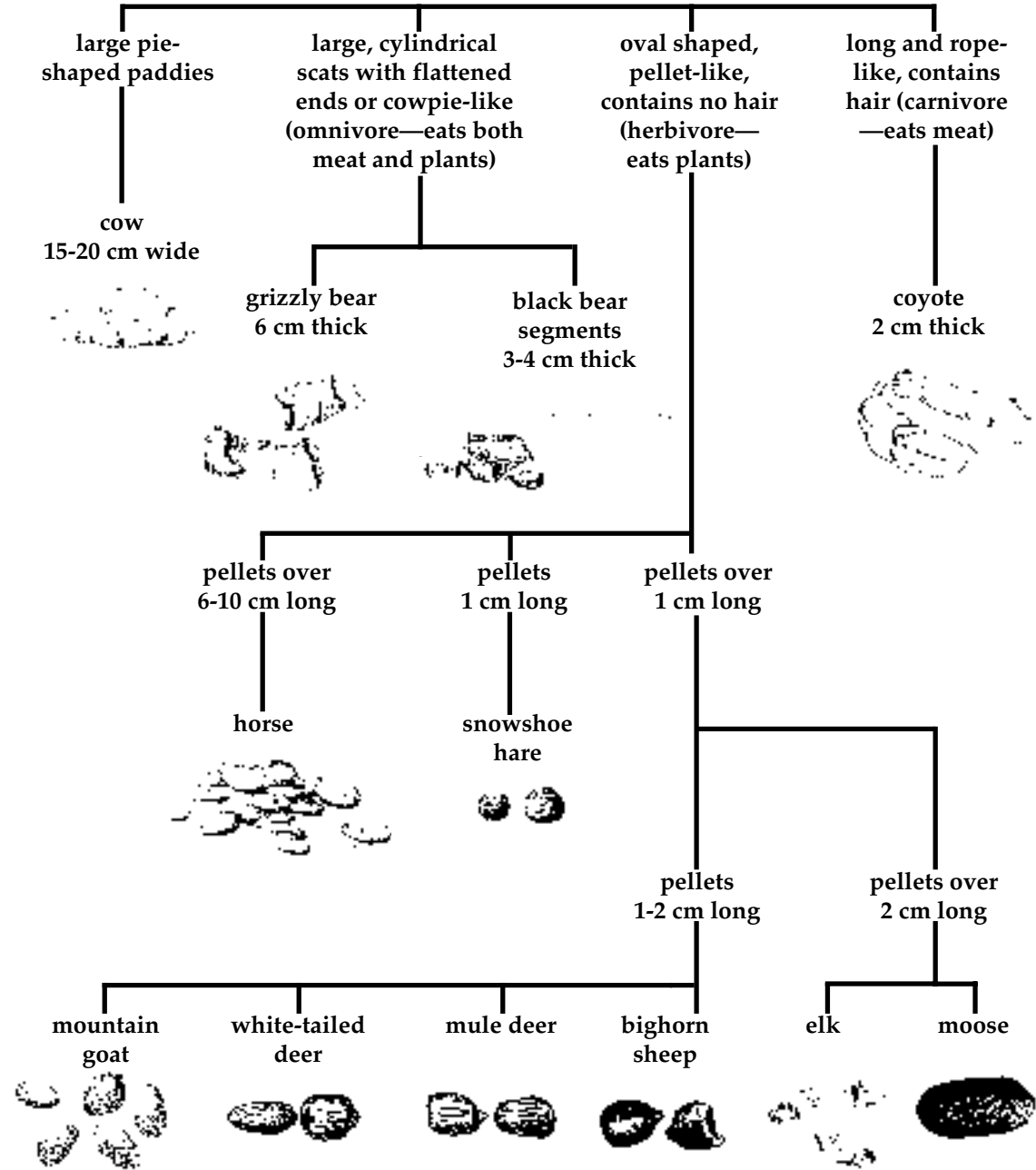
FOOD	HOME	GENERAL INFORMATION
<p>Squirrels feed on seeds, nuts, eggs, fungi, insects and other small animals. They often have caches of cones or fungi. They may have a favourite feeding stump which is easily identified by the pile or midden of cone flakes around it.</p>	<p>Red squirrels are usually found in pine and spruce forests. They nest either in a hole in a tree or they build nests in the branches. The nests are made of leaves, twigs and shredded bark.</p>	<p>Listen for their chattering as you walk through the woods.</p>
<p>Hares feed on succulent vegetation in the summer and on twigs, bark and buds in winter. When eating, the hare nips off its food at a neat 45° angle.</p>	<p>Snowshoe Hares can be found in both coniferous and deciduous forests. They take shelter under logs, in thickets or under trees.</p>	<p>Hares are nocturnal (most active at night). They turn white in winter and brown in summer. They have large hind feet which help them travel on top of the snow.</p>
<p>Whit-tailed Deer prefer twigs, shrubs, grasses, flowers and fungi. Shredded stem ends are clues that deer have been around.</p>	<p>Whit-tailed Deer can be found in forests and in open bush areas.</p> 	<p>When the Whit-tailed Deer is frightened, it sticks its tail up like a flag and runs off with a rocking-horse gait. They are mostly active at dawn and dusk. Their antlers branch like a tree.</p>
<p>Mule Deer prefer to eat twigs, shrubs, grass and flowers. They tend to graze more on grasses in the summer than do Whit-tailed Deer. They tear these plants off leaving ragged edges behind.</p>	<p>Mule Deer can be found on the edges of open mountain forests. They find shelter in thick bush.</p> 	<p>The Mule Deer has a black-tipped tail and very large ears. When frightened, it keeps its tail down and gallops off with a stiff-legged bouncing motion. Their antlers branch into a Y and each Y branches into another Y.</p>


ANIMAL	TRACK	SCAT
<p>ELK (WAPITI) <i>cervus canadensis</i></p>  <p>up to 230 cm long</p>	 <p>11.5 cm</p>	 <p>2.0 cm</p>
<p>See if you can fill in these spaces with you own collection of animal signs.</p>		

What animals made these signs and why?

1. Sawdust on the ground and holes in the trunk of the tree.
2. Three to five lines scratched in the bark two to four metres off the ground.
3. Bark rubbed off the young aspens from one to two metres off the ground.
4. Patches of bark stripped off the tree a few metres off the ground.
5. A series of carved galleries or tunnels under the bark of a dead tree. (Please be sure to put the bark back as you found it.)
6. A large pile of cone scales covering the ground next to a tree or log.
7. The ends of the shrubs have been chewed off, leaving ragged edges.
8. The ends of the shrubs have been chewed off, leaving neat 45 angle cuts.

Write a story about the events which led up to the making of any one of these signs.



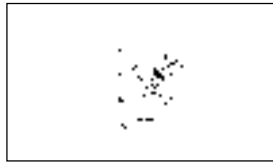
FOOD	HOME	GENERAL INFORMATION
Favourite foods include grasses, flowers, twigs and bark. 	Elk are usually found in semi-open forest in the foothills and in valleys. They are often seen in herds.	Elk are most active in the mornings and evenings. During the rut (fall mating season), the males produce a high-pitched bugling call.



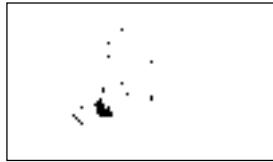
To make a positive cast of your track, lay the cast on a flat surface with the track facing up. Cover the surface of the track with a thin coating of cooking oil.



Fit a plastic collar around the cast so that it sticks up 3 cm above the cast.



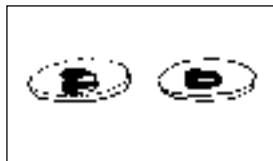
Mix up some plaster of Paris according to the instructions on the box (plaster of Paris can be purchased at most hardware stores).



Pour the plaster over the track.

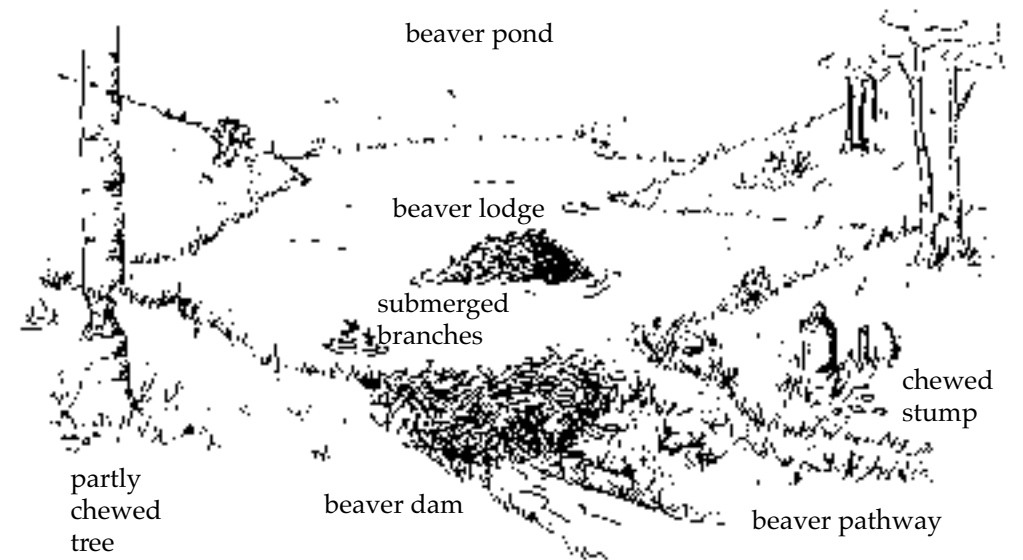


Let it set and then carefully separate it from the track.



You will now have an impression of the track as you first saw it in the ground.

How many of the beaver signs in this picture can you find in or near the pond? Check off the things you find.



Compare the signs at the beaver pond to signs in our human community?

BEAVER POND

HUMAN COMMUNITY

- | | |
|---------------------|-------------------------|
| e.g., chewed stumps | trees felled by loggers |
| submerged branches | _____ |
| beaver lodge | _____ |
| beaver pathway | _____ |
| beaver dam | _____ |