

PRE/POST SITE TEACHER MATERIALS

ANIMAL TRACKS



Forest Preserve District
OF WILL COUNTY

Bringing People and Nature Together



Pre/Post Site Teacher Materials

Program: Animal Signs

Four Rivers Environmental Education Center Field Trip

Integrate these resources into your classroom to maximize student learning from your educational program.

Activity: Bringing Life to Animal Signs
Source: Forest Preserve District of Will County

Glossary of Terms: Animal Signs
Source: Scats and Tracks of the Northeast: A Field Guide to the Signs of Seventy Wildlife Species

Student Worksheet: What's Different: Animal Tracking Page
Source: exploringnature.org

Reference Page: Animal Tracks
Source: exploringnature.org

Resource: Mammals Resource Loan Kit
Source: Forest Preserve District of Will County

Correlated Common Core State Standards

Source: Forest Preserve District of Will County and the Council of Chief State School Officers (CCSSO)



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Activity: Bringing Life to Animal Signs

Source: Forest Preserve District of Will County

Summary

Students take a walk and gather nature materials to create an animal sign scene on paper.

Materials

Nature materials: feathers, grass, sticks, leaves, pebbles, etc.

Paper

Animal track handout

Crayons, markers, colored pencils












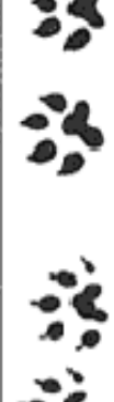
Pencils

Rulers












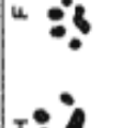


Procedure

1. Discuss what animal signs are and why people or scientists would look for signs of animal activity. Examples include: nests, eggs, scat, tracks, fur, feathers, sounds, holes in trees or ground, scratches in trees, chewed leaves, etc.
2. Handout the Guide to Animal Tracks and discuss various types of movement in birds and mammals.
3. Take the students on a short walk. Allowing them to take a handful of nature items to use for their scene.
4. Divide students into groups or have students work on their own to create an animal sign scene.
5. Use the handout and nature materials to create a natural scene integrating the various signs of animal activity previously discussed.
6. Once the scene is complete students can then write a story based upon their scene or switch scenes with other students or groups to decipher each other's scenes and add a investigation element to the activity.
7. Ask questions such as: How many animal signs are in the scene? Which animals have been present in the picture? What is the scenario of the picture? What season is it? Also discuss predator/prey relationships, adaptations, behaviors, etc.

Guide To Animal Tracks F - front track H - hind track T - tail marks may be present

					
<p>WHITE-TAILED DEER 2 1/2" to 3"</p>			<p>MOOSE 4 1/2" to 5 1/2"</p>		
<p>TRACK PATTERN</p>	<p>H - 2" F - 2 1/4"</p> 		<p>H - 2 1/4" F - 2 1/2"</p> 		
	<p>DOG - 2 1/4" to 4"</p>		<p>COYOTE</p>		
	<p>H - 2" F - 2 1/4"</p> 		<p>H - 1 3/4" F - 2"</p> 		
		<p>RED FOX</p>		<p>GRAY FOX</p>	
<p>TRACK PATTERN</p>	<p>H - 3" F - 4 1/4"</p> 		<p>HOUSE CAT - 1 to 2"</p> 		
	<p>BOBCAT - 1 7/8"</p>		<p>LYNX</p>		
	<p>OTTER - 1 1/2"</p> 		<p>FISHER - 2 1/4"</p> 		
		<p>MINK - 1"</p> 		<p>WEASEL - 1/2" to 1"</p> 	

Tracks are not to scale

					
<p>RACCOON H - 4" F - 2 1/2"</p>			<p>STRIPED SKUNK H - 2" F - 2"</p>		
<p>TRACK PATTERN</p>	<p>H - 3 1/4" F - 2 3/4"</p> 		<p>H - 6" F - 3"</p> 		
	<p>PORCUPINE</p>		<p>BEAVER</p>		
	<p>H - 7" F - 4 1/2"</p> 		<p>H - 2" F - 1 1/2"</p> 		
		<p>BLACK BEAR</p>		<p>OPOSSUM</p>	
<p>TRACK PATTERN</p>	<p>H - 2 1/4" F - 2"</p> 		<p>H - 2 1/2" F - 1"</p> 		
	<p>WOODCHUCK</p>		<p>MUSKRAT</p>		
	<p>H - 5" F - 2"</p> 		<p>H - 3 1/2" F</p> 		
		<p>SNOWSHOE HARE</p>		<p>COTTONTAIL RABBIT</p>	
<p>TRACK PATTERN</p>	<p>H - 2 1/4" F - 1 1/2"</p> 		<p>H - 1/4" F</p> 		
	<p>GRAY SQUIRREL</p>		<p>WHITE-FOOTED MOUSE - 1/4"</p>		
					
		<p>CROW - 2 1/2"</p>		<p>TURKEY - 4"</p>	
		<p>RUFFED GROUSE - 2"</p>			



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Glossary of Terms: Animal Signs

Source: Scats and Tracks of the Northeast: A Field Guide to the Signs of Seventy Wildlife Species

Cough Pellet: remnants of bone and hair coughed up by many species of bird after eating their prey. Usually found near roosting, nesting, or feeding areas

Dewclaw: toe that over evolutionary time has become reduced in size and moved up and away from the foot. Example, toes 2 & 5 in deer.

Foot Axis: imaginary line down the center of the foot. Runs between toes 3 and 4 in deer and their relatives, and down toe 3 of other mammals and in birds.

Gait: term for the way an animal moves, such as walk, trot, lope, gallop, bound, etc. Determined by the muscle movement of the animal, not by speed.

Heel: portion of the foot to the rear of the pad. In mammals, the heel may be fur-covered, naked, or have one or more proximal pads. In reptiles, may be covered with tubercles (rough, pinhead sized protuberance on the sole of the foot)

Hop/Bound: gait in which both hind feet strike the ground simultaneously, side by side. Full bound indicates that both front feet hit together, half bound indicates that one front foot hits before the other.

Length: of a track, the distance from the front of the toe pads to the back of the pads, measured parallel to the foot axis. In mammal tracks, does not include claws. In bird tracks, does not include toe 1, but includes claws if they are attached and indistinguishable from the toe pad.

Line of Travel: imaginary line on the ground over which the center of gravity of an animal passes

Pad: hard, callus-like structure on the sole of an animal's foot. Each toe may have a digital pad, with a larger connecting pad located behind the toes.

Scat shape: *Scat* refers to animal waste.

Cords are long pieces of scat, typically four to ten times longer than the width. Ends may be blunt or tapered.

Ovals are pieces of scat typically two to four times longer than wide and tapered at both ends.

Nipple-dimple shaped scat is pointed at one end and depressed on the other.

Stride: the distance from the point where a foot touches the ground to the point where the same foot touches the ground again. Measured parallel to the line of travel.

Track: refers to an individual footprint.

Width: of a track, the greatest distance from the right side of the pad of the foot to the left side, whether the greatest distance is across the toes or palm pads. Measured perpendicular to the foot axis. In bird tracks, includes claws if they are attached and indistinguishable from the toe pad.



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Student Worksheet: What's Different: Animal Tracking Page
Source: exploringnature.org

What's Different?

Circle 8 things that are different in the animal-tracking scene on the bottom.

Answer Key

1. ptarmigan and weasel switched
2. last hare track has feet swithced
3. one deer track is reversed
4. one coyote track is a deer
5. hare facing opposite way
6. tree missing
7. moon phase change
8. deer missing antlers

It is a bobcat.

What's Animal is this?

This carnivore leaves a track with no visible toenails – because it retracts them. It is a

What's Different?

Circle 8 things that are different in the animal-tracking scene on the bottom.



What's Animal is this?

This carnivore leaves a track with no visible toenails – because it retracts them. It is a



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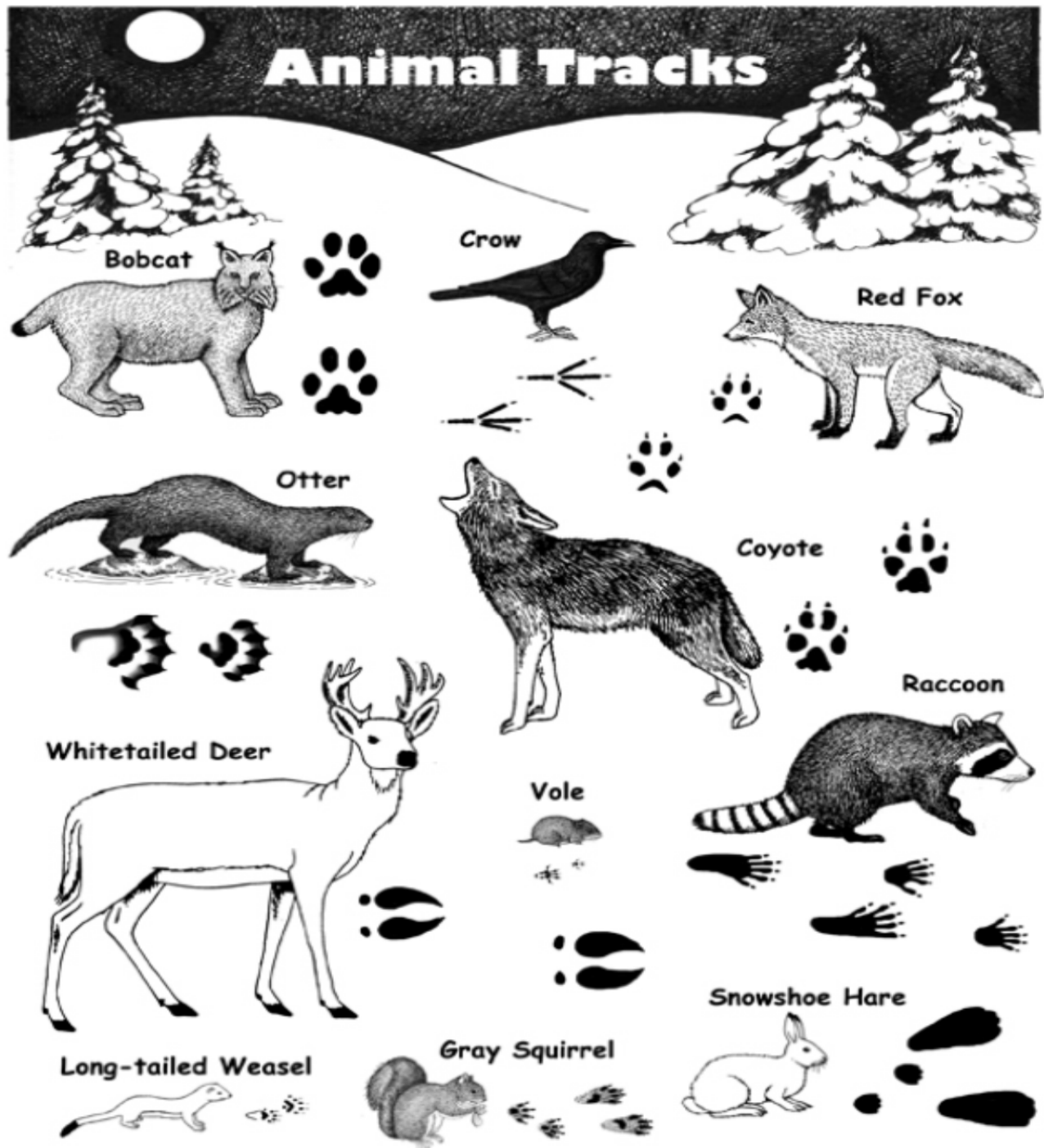
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Reference Page:

Animal Tracks

Source:

exploringnature.org





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Resource: Mammals Resource Loan Kit
Source: Forest Preserve District of Will County

Books, skulls, bones, scat replicas, paw/feet replicas. Available for check out at Sugar Creek Administration Center, Joliet IL. Call 815.727.8700 for availability.

Environmental Education Resource Loan Kits Mammals Kit - Contents Checklist

Feet & Scat

Beaver Feet (front and back)
Raccoon Feet (front and back)
Chipmunk Feet
Deer Mouse Feet
Grey Squirrel Feet
Opossum Feet (front and back)
Coyote Feet (front and back)
Skunk Feet (front and back)
Opossum Scat
Mouse Scat
Raccoon Scat

Skulls, Bones, & Claws

Beaver Skull
Raccoon Skull
Deer Jaw
Coyote Claw

Books

Animal Lives - The Otter Book
Animal Lives - The Rabbit Book
Bats
Beavers Book
Educators Activity Book about Bats
The Kids Wildlife Book
Petersons Field Guide to Mammals
Playing Possum Activity Book &
Materials
Rabbits, Squirrels, & Chipmunks
Scat, Tracks, & Other Animal Signs
Whitetail Deer

Educational Materials

Bat Chat Audio Tape
Bat Puppet
Chipmunk Puppet
Coyote Puppet
Mammal Eyewitness Video
Mother & Baby Possum Puppet
River Otter Puppet
Skunk Puppet
Woodchuck Puppet



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Correlated State Standards

Source: Forest Preserve District of Will County, the Council of Chief State School Officers (CCSSO), and the National Research Council (NRC)

Identified ELA and Math Standards are detailed below specific to this education program.



ELA Standards

Subject Code	Grade 6	Grade 7	Grade 8	Grades9-10	Grades11-12
Reading for Information (RI)	RI 6.3, RI 6.7, RI 6.9,	RI 7.3, RI 7.7, RI 7.9	RI 8.3, RI 8.7, RI 8.9	RI 9-10.7	RI 11-12.7
Writing (W)	W 6.7, W 6.9	W 7.7, W 7.9	W 8.8, W 8.9		
Language (L)	L 6.1, L 6.3, L 6.6	L 7.1, L 7.3, L 7.6	L 8.1, L 8.3, L 8.6	L 9-10.1, L 9-10.3, L 9-10.6,	L 11-12.1, L 11-12.3, L 11-12.6
Reading for Science and Tech (RST)	RST 6.4, RST 6.9	RST 7.4, RST 7.9		RST 9-10.4 RST 9-10.9	RST 11-12.4, RST 11-12.9
Writing for History, Science and Tech (WHST)	WHST 6.9	WHST 7.9	WHST 8.9	WHST 9-10.9	WHST 11-12.9



NGSS Standards

Disciplinary Idea	MS	HS
Life Science 3 Ecosystems(LS2)		LS2 -7, LS2 -8