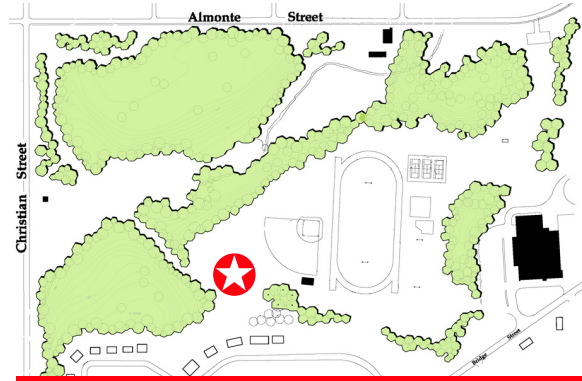


Station 1: Track Tales Station 2: Signs of Winter Life Nature Walk

Produced with support from  Valley Heartland through the Eastern Ontario Development Program

Community Futures Development Corporation

Map reprinted with permission from Mississippi Mills



**LIFE SYSTEMS
HABITATS AND COMMUNITIES**

GRADE 4

CURRICULUM USE WINTER, 75 MINUTES PLUS TRAVEL TIME

Curriculum Expectations

- Demonstrate an understanding of habitats as areas that provide plants and animals with the necessities of life.
- Use scientific inquiry/research skills to investigate ways in which plants and animals in a community depend on features of their habitat to meet important needs.
- Compile data gathered through investigation in order to record and present results, using tally charts, tables, and labeled graphs produced by hand.

Objective

- To study the forest habitat in winter and to discover how forest plants and animals are adapted to survive the coldest season of the year.
- Instill an appreciation of nature in Gemmill Park.
- To enhance observation skills in the outdoors.

Materials to Bring

Each group of four should have:

- one clipboard
- two pencils
- three rulers that measure in millimeters
- 1 plastic bag for collecting
- small hand shovel or trowel

Summary

Students will play a game to make judgments based on indirect evidence. While walking through a winter forest students will learn to observe and identify evidence of wildlife and their habitat.

Special Notes

Students should dress appropriately for a one-hour walk. Emphasize the need to respect the park. Prepare students for the trip by reviewing the work sheet in class so they will know what to look for at their stations within the park. Divide students into groups of four before the trip, with one member being the recorder.

Assessment Opportunities

1. Winter Forest Worksheet- completed at the park or could be shared with classmates as a presentation.
2. Discuss and respond to suggested questions in the classroom or after the walk.

Reference Materials

Rideau Valley, Cataraqui Region, Mississippi Valley Conservation Authorities. *Conservation Education Resource Book*. 1981.

Going Gemmill Field Notes

Names: _____

Winter Forest Habitat Worksheet

Squirrel



Grouse

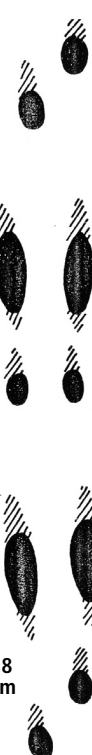


SIGN	Animal Who Made The Sign (labeled diagram of the sign)		Observations (many tracks, fresh or old etc.)
	1.	2.	
TRACKS			1.
			2.
			3.
			4.
NESTS			1.
			2.
HOLES (in trees or in snow)			1.
			2.
SEEDS			
OTHER SIGNS			

Mouse



Rabbit



Station 1 Track Tales (Tracking Study) - 20 minutes

Instruction - Discuss and demonstrate the ability to make judgment based on indirect evidence.

Footprints in the snow tell us:

- the direction the person was traveling
- the speed
- the kind and size of shoe the person was wearing

Activity - Students stand in two parallel lines about three metres apart with undisturbed snow between the lines. Have students turn their backs to each other while

one student is given a secret assignment to make tracks in the snow between the groups. Once the tracks are made, the students turn around and examine the evidence and make predictions on how the tracks were made. Repeat experiment on fresh snow. Assignments could include:

- Walking backwards
- Walking on all fours
- Jumping
- Wheelbarrow tracks

Station 2 Signs of Winter Life Nature Walk - 55 minutes

Instruction - Encourage students to look beyond where they are walking to avoid disturbing evidence of winter life and habitat that may be on the snow before them. Review locations of forest animal habitat and seed, such as:

- Forest Canopy - nests and burrows
- Open Water - evidence of tracks leading to water's edge
- Log Condo - evidence of a multitude of insects and rodents using fallen logs as refuge/home
- Shrubby Area - birds hide, nest and feed in these areas
- Below snow cover - evidence of burrows and trails made by rodents

Activity - Walking with previously assigned groups, students follow the route as suggested on the map (page 4), stopping to look for evidence of winter life in each of the five designated areas. Each group should be set up with their own area of study within the designated areas (indicated as thicker red line on map). Students examine all evidence of winter life: above tree line, on snow surface and below snow cover on both sides of the trail. Complete chart. Continue nature walk looking for other winter forest signs of life.

Follow up Questions:

These questions can be asked along the trail, after the walk or back in the classroom.

1. Is snow helpful to plants and animals in winter? Explain.

Answer: Yes, snow provides insulation to protect small animals and seeds. The air temperature above the snow fluctuates but the ground surface under the snow remains warm and stable.

2. Are trees alive in the winter? How do they protect themselves from the cold climate?

Answer: Yes, trees grow winter buds to protect the tips of their branches, drop their leaves to protect against water loss and thicken their sap.

3. Name three ways that plants help animals in the winter.

Answer: Plants provide shelter for birds and animals, cover for enemies, and food.

4. How do birds survive the winter?

Answer: Some birds like ducks, warblers and geese migrate south for the winter, and some like chickadees remain active all winter.

5. Where do the insects go in the winter?

Answer: Over winter most insects wait for summer as eggs and larva on leaves, water and wood.