

# **OUTDOORS**

## **Our Great Outdoors**

**A Guide for Leaders and Youth Leaders**

*Ontario 4-H Council*

*Ontario Ministry of Agriculture, Food  
and Rural Affairs*

4-H 1760 95 LE

*The primary purpose of the 4-H program is  
the personal development of youth in rural Ontario.*

## THE 4-H PLEDGE

"I pledge  
My Head to clearer thinking  
My Heart to greater loyalty  
My Hands to larger service  
My Health to better living  
For my club, my community and my country."

## TABLE OF CONTENTS

	PAGE
WELCOME TO 4-H .....	1
RESPONSIBILITIES .....	2
4-H CLUB PROGRAM PLANNING .....	4
SPECIAL NOTES .....	7
REFERENCE BOOKS .....	10
MEETING ONE: Going Wild .....	14
MEETING TWO: Over In The Meadow .....	22
MEETING THREE: If You Go Out In The Woods Today .....	29
MEETING FOUR: Water Rats .....	36
MEETING FIVE: Wildlife Downtown .....	42
MEETING SIX: Nighttime Magic .....	48
RAINY DAY ACTIVITIES .....	52
PROJECT COMPLETION .....	58

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Agriculture, Food and Rural Affairs and Agriculture and Agri-Food Canada.

## **BE A "GREEN" 4-H CLUB**

The 4-H program uses a lot of paper. Please help us to reduce our costs, and save a few trees, by remembering these tips.

- Only 4-H members (10-21) and screened volunteers should receive 4-H resources.
- If your club plans to do this project again, keep the resource materials so you don't need to reorder.
- If your club has extra resources, please return them promptly to the Ontario Ministry of Agriculture, Food and Rural Affairs office so they can be used by someone else.

## **WELCOME TO 4-H**

It has often been said that, "Volunteer 4-H leaders are a blend of friend, teacher and parent." What a big order to fill! But you will discover that you have many talents as a 4-H leader. Having an interest in young people and their development and being willing to take up the challenge of 4-H leadership is the first step to success.

This project focuses on the outdoors. However, the development of members as individuals is your real goal. You will get to know the club members and where their interests lie very well. Use this knowledge, your own expertise and imagination to plan a fun, interesting and challenging club program for your members. And enjoy being a 4-H leader!

## **PROJECT INTRODUCTION**

This project is designed to expand members' experiences and knowledge of the outdoors and it really is a project where they will "Learn to Do by Doing."

During this club, members will visit four separate ecosystems: meadow; forest; water area; and urban park. These ecosystems could all be contained within a single park or conservation area. It depends on what's available in your area. An important part of the project is to see the differences between the ecosystems, as well as the similarities.

As well as identifying animals, insects and plants during the meetings, it is also important to understand how humans fit into the natural scheme of things. We will be carrying out a litter survey at the beginning of each meeting as a means of finding out how people use an area, but we'd also like to include some more

positive contributions people have made to natural spaces and talk about the parks system in Ontario.

Because we want members to really use their five senses to explore nature throughout this project, there will be no Members' Manual. Instead, members will be introduced to a wide variety of reference materials and people who know and appreciate nature.

## **RESPONSIBILITIES**

### **4-H LEADERS**

#### **Before your project begins:**

1. Familiarize yourself with current provincial and local 4-H policies;
2. Attend a leader training session (if scheduled);
3. Advertise the project and organize a club with a minimum of six members; and
4. Review available resources and begin planning the club program.

#### **During the project:**

1. Attend each meeting and the Achievement Program;
2. Assist members in planning and presenting the club program;
3. Provide a FUN, learning atmosphere;
4. Ensure the club membership list and/or enrolment cards are completed and forwarded to the Ontario Ministry of Agriculture, Food and Rural Affairs office before the second meeting;
5. Help each member to set and achieve goals for personal development;
6. Encourage members to work together as a group;
7. Provide guidance in choosing and completing an Achievement Program; and
8. Evaluate the club program.

## 4-H MEMBERS

### **General Requirements**

A member will complete a project satisfactorily by:

1. participating in at least 2/3 of his/her own club meeting time;
2. completing the project requirements to the satisfaction of the club leader(s);
3. taking part in an Achievement Program.

### **Special Activities**

The purpose of the special activity is to allow the member to explore one aspect of the project in greater detail. Equally important, members should be given the opportunity to share their discoveries with the club at a meeting or at the Achievement Program.

If your club decides to do special activities, here are some ideas for members to consider. These suggestions would also make excellent youth leader presentations.

1. Preserve a record of your club's experiences throughout your meetings by producing a Club Scrapbook, which will include a representative sample of what members saw or experienced at each of the meetings. Such a Scrapbook could include maps, analysis of human use patterns (trails, campsites, recreational opportunities, inventory of litter collected, etc.) and an inventory of wildlife and plant material seen or heard.
2. Do an environmental study of forest and meadow areas, comparing rainfall, temperature variations, distribution of litter, etc. Map human and animal uses, including trails, habitat (campsites), etc. Present your findings to your club.
3. Make a poster explaining the Chain of Life. Display the poster in your school, the library or community centre.
4. Plan the perfect municipal park, taking into account human and animal usage, different habitat requirements, and a variety of plant material. You can design a new park or redesign an existing park.

5. Put together a program of activities or displays that explain the 6 ecological principles. Present this program at your school, in a mall, at the Achievement Program or during a fair.
6. Choose another project to be approved by your 4-H leader.

## **4-H CLUB PROGRAM PLANNING**

A successful 4-H club doesn't just happen! Careful planning is necessary and very important. As a 4-H leader, you have a responsibility to do the best job you can in providing a fun, learning experience for the 4-H members. Planning will make this a reality.

The 4-H Volunteers' Handbook has lots of valuable information to help you and your members plan a successful club program. Refer to "The 4-H Meeting" section of your handbook for tips on planning successful meetings, effective communication, games, judging and special events. The chart on page 5, of this Guide, can be used to record your plans.

### **WHAT IS AN ACHIEVEMENT PROGRAM?**

- An opportunity for members to share with others the knowledge and skills they have gained during this 4-H project.
- Involves each member in some way.
- Informs the public about the purpose and goals of the 4-H program.

Achievement Program ideas specific to this project are suggested on page 6. Involve club members in selecting a suitable idea and making the necessary preparations.

There should be some thought given to publicizing your club's Achievement Program. Depending on the nature of your event, you can publicize it before it happens, by putting a notice out and inviting people to come, or

4-H CLUB PROGRAM PLANNING CHART

MEETING OR EVENT	DATE	TOPIC ACTIVITY OR TASK	PEOPLE WHO COULD HELP	PRESENTATION IDEAS TO CONSIDER

after the event, by writing a report on what happened. Organizations that might be good sources of publicity are your community newspaper, association newsletters (if you are involving other service clubs), local radio stations or flyers or handbills.

Some clubs have their Achievement Program during the local fair, while others will want to put on a separate event.

- Prepare a display on a local ecosystem. Set it up at a shopping centre, mall or other public place. Club members should staff the display to answer questions.
- Make a presentation of your club's experiences to your sponsor, another youth group, a senior's group or a service club.
- Organize and lead a hike through one of the areas the club has visited, inviting another 4-H club, school group, Girl Guide or Boy Scout troop. Describe the ecosystem of the area, talking about the plants, trees and wildlife. Show how people use the area and the good and bad effects of that use. Have some members of the club make a record of the trip, either by taking photographs, drawing pictures or keeping a diary of the planning and the hike itself.
- Make a presentation, either written or oral, on one of the areas the club visited, describing what the members learned. Collect information on the history of the area, wildlife population and habitats, varieties of plant life visible, recreational opportunities, etc. A presentation could be made to a service club, boys' or girls' group or church group. An information centre could also be set up at the site, in a shopping mall, a local fair or some other suitable place.
- Do a complete litter survey of one of the areas the club visited, mapping the areas with the highest concentration of litter. Make an inventory of all the garbage that was found and make a display. Take



pictures of the area before the cleanup and after. Set up the display in a local mall, shopping centre, a school, the library or at a fair.

- Watch that early bird get the worm! Choose an area the club visited and survey the birds seen at dawn and at dusk. You may want to work in shifts. Sketch the birds and their habitat and describe what they do during this time. Consider recording their songs, too. Try to include an experienced birder in your project. Make a presentation to your sponsor or another interested group.
- Put together a photographic essay on the club's trip through one of the areas. Show as many different aspects of the area's habitat and plant and animal populations as possible. Each photograph should have a caption describing what's in it. Display the photographs in a local mall, shopping centre, a school, the library or at a fair.
- Describe a Conservation Area or a national, provincial or municipal park in the area, either in a written essay or using photographs. Collect information on the history of the area, wildlife population and habitats, varieties of plant life visible and recreational opportunities. Present the information to an interested group.
- Put together a Campfire Program for the members' parents/guardians or another 4-H club. Or you could plan and hold this program at a retirement home or a children's hospital ward.

## **SPECIAL NOTES**

### **GOALS**

This club encourages the members' natural curiosity about the world around them. Leaders are not expected to know the names of every plant, every tree or every animal that is out there. There are lots of good reference books, some of which are listed in the back of this guide and many enthusiastic hikers, birders and naturalists you can invite to your meetings. But even

with all these resources, there may be times when you can't identify a plant or an animal. Don't worry when this happens.

Be realistic about your objectives for this club. Members are not expected to be able to identify every bird, animal, bush, tree or flower they come across by the time they have completed this project. Instead, we are striving to increase their knowledge of nature and, if they can name 2 or 3 more species of plant and animal life by the time they are finished this project than they could before, it will have been a success.

## SAFETY

Safety is an important consideration in this project. Leaders should always have a first aid kit with them to deal with scrapes, blisters, bug bites and the like. Members should also fill out a medical form to provide emergency contacts and phone numbers and to alert leaders to allergies, etc.

Leaders should also have an emergency plan prepared in case a serious accident occurs while they are in the wilds. Leaders and senior members should be especially watchful of younger members when the club is exploring the water and during campfire night.

## CLOTHING

Members should wear good shoes or boots for each meeting, as well as a hat. Wear loose comfortable clothing and if you are hiking in the spring or fall, the layered look will be most comfortable. When the club makes its visit to the water area, each member should also bring an extra pair of socks. If there's rain in the forecast, a rain cape or waterproof jacket is a good bet.

It is also recommended that members bring a snack and a drink for each meeting. You might consider having each member bring a fanny pack or a small backpack to carry snacks and spare clothing in.

## MEETING ORDER

There is no particular order for the meetings, although Meetings One and Six are a natural beginning and ending to the club. Feel free to change the order of Meetings Two through Five if it suits your club better.

## SEASON

Although this club would work best during the spring, summer or fall, it can be held during the winter. A winter club would have greater challenges, though: members may not want to spend as much time outdoors as they would in other seasons; there isn't as much for the untrained naturalist to look at; the animals, birds and insects just aren't as accessible as at other times of the year.

There are additional indoor activities listed in each meeting that can be used to flesh out a winter meeting or meetings that get rained out.

## TOPO- GRAPHICAL MAPS

There are authorized topographical map dealers in most cities and towns in Ontario. Many of them are sports stores or outfitters. Check with your public library. They will have some maps and can tell you about other local sources. Otherwise contact the following.

Ministry of Natural Resources  
Information Centre  
Room 173, Macdonald Block  
900 Bay Street  
Toronto ON M7A 2C1  
Tel: 1-800-667-1940

Canada Map Office  
Surveys and Mapping Branch  
Dept. of Natural Resources Canada  
615 Booth Street  
Ottawa, ON M7A 1W3  
Tel: 1-800-465-6277

To obtain the right map:

- Order the Ontario Base Map Index from the Ontario Ministry of Natural Resources **OR** the Index for Eastern Canada from the Canada Map Office,
- Using the index, locate the area you will be exploring,
- Order the correct map.

The indexes are sent out free of charge but there is a charge for the maps (\$6.25 + tax from Ontario Ministry of Natural Resources, \$10.70 + tax from Canada Map Office).

## GUESTS

Guests don't have to have professional training in the subject of birdwatching or identifying wildflowers, trees, grasses or animals. You can invite hikers, birdwatchers, fishermen, representatives from Ducks Unlimited or anyone with an enthusiasm or knowledge of your area.

## **VOLUNTEERS' HANDBOOK**

Refer to your 4-H Volunteers' Handbook as you plan meetings. You will find many useful tips and ideas covering topics such as program planning, successful meetings, parliamentary procedure, effective communicating and presentation methods. If you do not have a handbook, please ask your OMAFRA contact.

## **JUDGING**

Judging is an optional activity in Meeting Four in this project. Each member should have access to a 4-H Judging Handbook (4-H-1550-91) and be encouraged to use it. These can be obtained from your OMAFRA contact.

## **REFERENCE BOOKS**

There are many good reference books available. You can find them in your public library or in bookstores. Members or friends and family may also have reference books you could borrow. The books listed below are not the only books available but they are standard works on the subjects.

When you are searching for a reference or guide book, make sure it covers your geographical area. The more localized the book, the more useful you will find it. For example, a book covering the birds of eastern North America will be more useful to you than one covering the entire continent.

You also want to choose a book with a lot of pictures, preferably colour, and an easy indexing system so you can find what you are looking for.

## **BIRDS**

Roger Tory Peterson. A Field Guide to the Birds. Houghton Mifflin, 1980.

Pete Dunne. The Feather Quest. Dutton, 1992.

Earl Godfrey, John Crosby. The Birds of Canada. Queen's Printer, 1966.

David Hancock, James Woodford. Some of the Common and Uncommon Birds of Ontario and Quebec. General Publishing, 1973.

J. Lansdowne. Birds of the Eastern Forest. McClelland and Stewart, 1968-70.

## WILDFLOWERS

Roger Tory Peterson. A Field Guide to Wildflowers of Northwestern and North Central North America. Houghton Mifflin, 1968.

Tim Fitzharris, Audrey Fraggalosch. Wildflowers of Canada. Oxford University Press, 1986.

Mary Ferguson, Richard Saunders. Canadian Wildflowers Through the Season. Van Nostrand, 1982.

## TREES

W.M. Harlow. Trees of the Eastern and Central United States and Canada. Dover Publishing, 1957.

R.C. Hosie. Native Trees of Canada. Fitzhenry & Whiteside, 1979.

F.H. Montgomery. Trees of Canada and the Northern United States. Ryerson Press, 1970.

## ANIMALS

Bobbie Kalman, Glen Loates. Forest Mammals. Crabtree Publishing, 1987.

O.J. Murie. A Field Guide to Animal Tracks. Houghton Mifflin, 1974.

Paul Rezendes. Tracking and the Art of Seeing. Camden House, 1992.

## WETLANDS

Pamela Hickman. Wetlands. Kids Can Press, 1993.

L.A. Buck, G. Miller. Wetlands: bogs, marshes and swamps. Parents' Magazine Press, 1974.

N. Hester et al. The Living Pond. Frederick Watts, 1990.

R.K. Kirkpatrick et al. Look at Pond Life. Raintree Childrens' Books, 1978.

## GRASSLANDS

C. Horton, M.C.V. Wilson. A Closer Look at Grasslands. Gloucester Press, 1979.

## INSECTS

Will Barker, Carl Burger. Familiar Insects of North America. Harper, 1960.

Adrian Forsyth. Exploring the World of Insects. Camden House, 1992.

Pamela Hickman, Judie Stores. Bugwise. Kids Can Press, 1990.

## FEEDBACK

The 4-H Resource Development Committee of the Ontario 4-H Council reviews and evaluates 4-H resources. Comments and suggestions about 4-H manuals and guides are always welcome. They may be sent to the following address.

4-H Resource Development  
Committee  
c/o Guelph Agriculture Centre  
P.O. Box 1030  
Guelph, Ontario  
N1H 6N1

# KIDS HELP PHONE



**KIDS HELP PHONE**  
**JEUNESSE, J'ECOUTE**  
**1-800-668-6868**

Since there isn't a members' manual for this project, the members haven't received The Kids Help Phone number: 1-800-668-6868. Please share the number with them.

Kids Help Phone is available to over 7 million children and teenagers throughout Canada.

It is a national, bilingual, confidential, toll free helpline staffed by paid, trained professionals. In response to the problems and concerns of our youth, Kids Help Phone provides a listening ear, emotional support, counselling, information and referrals. Children and teens from anywhere in Canada can call anonymously 24 hours a day, 365 days a year.

Children and teens can call about anything that is bothering them including – abuse; drugs; alcohol; conflicts with parents, friends or teachers; pregnancy; sexuality; suicide; or parental separation and divorce.

Please mention this number to your members and explain what it is for. Make sure they know that it is free and they don't have to give a name or address.



*The Kids Help Phone gets 1000 calls a day...  
2000 more get a busy signal. If you or your club  
or someone you know would like to make a  
donation to the Kids Help Phone, call 1-800-268-  
3062.*

# MEETING 1

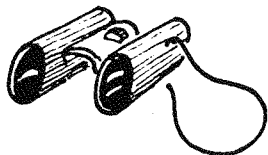
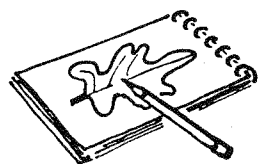
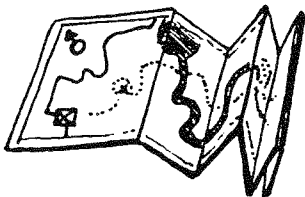
# GOING WILD

## OBJECTIVES

1. To introduce members to the areas they will be exploring.
2. To teach members the rules of low-impact hikes into the wild.

## PREPARATION AND EQUIPMENT

- This first meeting can take place anywhere you like but there should be an opportunity to take a short, 20-minute hike through a natural area.
- It would be a good idea to invite someone with a good general knowledge of the natural area around you, someone who can answer questions on birds, trees, plants and trails and the sorts of things you can expect to find wherever you go for a hike in the area. Conservation Authority staff, naturalists, hikers or provincial park naturalists would be useful contacts for this and all other meetings.
- There is a basic leaders' kit that you will need for each meeting which includes the following.



- maps, including tourist maps, topographic maps in 2 different scales, trail maps, etc. of the various areas you will be visiting
- a compass (or several)
- binoculars (or several)
- trowels
- tape measure
- bags in which to collect litter
- camera (optional)
- sketching paper, pencils and charcoal
- thumbtacks
- clipboards and paper
- selection of reference books

- You will need to set up a Question Hike before the meeting, for which you need clipboards, paper, pencils and a trail.
- You will need the following 4-H materials for this meeting.
  - Membership list
  - Enrolment cards (if available)
  - "4-H Club Member Lives Here" signs (if available)



# TIME GUIDELINES

A time guideline has been provided for each section of the meeting. Please remember that this is only a guideline. The number of members, their maturity, specific interests and the way the meeting is structured will all influence the duration of specific activities.

## IN A NUTSHELL

Welcome and Getting Acquainted	5 min.
Getting Started	15 min.
Roll Call	5 min.
A Road Map to Good Meetings	20 min.
Orientation	5 min.
Ground Rules	5 min.
Coming to Your Senses	15 min.
Question Hike	30 min.
Snack Attack	20 min.
Before the Next Meeting	<u>5 min.</u>
	125 min.

Optional: Digging Deeper

## WELCOME AND GETTING ACQUAINTED

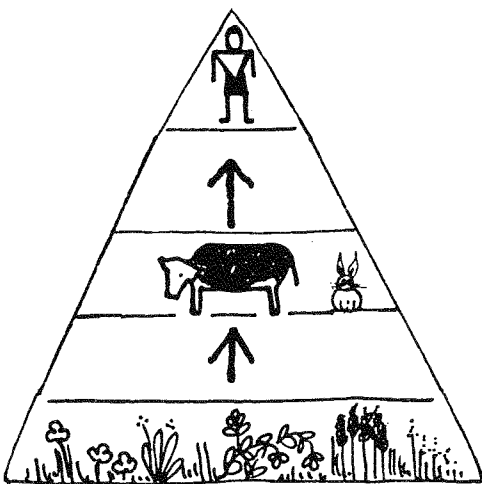
(5 minutes)

At this first meeting you should consider having a short activity to get your members talking to one another. Sometimes it is very difficult to get new members to contribute to the meeting, but if you make a game out of it right from the beginning, somehow the ice is broken. Here's a suggestion.

**Demonstrate the Chain of Life:** In nature, everything is connected to everything else. The food chain, or chain of life, is a chain of organisms in which each link feeds on the one ahead and is eaten by the one behind, until you reach the ultimate consumer at the end of the chain.

What follows is a list of these chains.

- grass, cow, hamburger, person
- cricket, sparrow, hawk
- clover, rabbit, coyote, hunter
- damsel fly, frog, snake, owl
- fingerling, crayfish, otter, trapper
- algae, protozoa, insects, bluegill



Print the name of one organism on each card or piece of paper. Colour code the organisms within the same food chain. For example: cricket, sparrow and hawk would all be printed in the same colour or on the same colour of paper.

For this activity hand out the cards or pieces of paper to members. They are then to find the others along their chain.

Once all the members of the chain are together and have introduced themselves, they must put themselves in order. If you think that will be too difficult, you can help them do this by indicating on the cards the position of each member of the chain. For example, you would write "Grass 1/4," which means it is the first element in a 4-item chain. The second card would read "Cow 2/4" and so on.

Write a name from each chain on plain white paper, with no colour coding or numbering. Give them to Senior Members. They must then go to each group to discover where and how they fit in.

## GETTING STARTED

(15 minutes)

1. Begin with the 4-H PLEDGE. Post a copy so everyone can see it.
2. WELCOME the members. Introduce leaders. Have members introduce themselves. Introduce the youth leader (if this has been decided). Ensure that everyone has a name tag.
3. Complete ENROLMENT CARDS and/or MEMBERSHIP LIST.
4. Give a brief INTRODUCTION to the project.
5. Outline the OPPORTUNITIES members have such as taking part in the local fairs and shows, "4-H Go For the Gold," 4-H Members' Conference, etc.

6. DISTRIBUTE "4-H Club Member Lives Here" signs if available.
7. Discuss the members' REQUIREMENTS for the project. See page 3. Outline any expectations you have of the members.
8. Briefly discuss the ACHIEVEMENT PROGRAM - type, date, time, location.

The remaining time is used for activities related to the meeting material. Try to keep the members interested and involved by using a variety of techniques and activity coordinators – leaders, youth leader, guest or senior members.

## A ROAD MAP TO GOOD MEETINGS

(20 minutes)

It is important for everyone to become familiar with the basics of running a good meeting. Review with members the purpose of an agenda and the executive's responsibilities. Have the club members elect an executive. You may find the 4-H Volunteers' Handbook and the OMAFRA Factsheet, Procedures for Meetings (89-095) helpful.

## ROLL CALL

(5 minutes)

**Q.** What would you most like to see on a walk in the woods? In a meadow? In a wetland?

**A.** You may want to ask all three questions or only one. It depends on the size of your club. Keep track of the answers: they'll give you a clue as to how knowledgeable members are about the kinds of animals and plants that are around them. If everyone wants to see an anaconda, you know there's a lot to learn!

## ORIENTATION

(5 minutes)

One of the most important outdoor skills a member can develop is a good sense of direction and the best place to start is with the points of the compass.

Ask members to point north. How did they make their decision? Are they right?

Members should also get used to using maps. Let them look at the maps and find out where they are. Point out familiar landmarks and talk about the different

scales on the maps you are using, different legends and the various kinds of information you can get from looking at a map. We will be doing this at the beginning of every meeting so you don't have to be exhaustive this first time.

## GROUND RULES

(5 minutes)

We want members to learn how to be responsible during their nature studies. All it takes is a little time and common sense.

Before you set out on any outdoor activity it is important to establish safety rules and procedures. These could include setting up a buddy system and what to do if you get lost.

You should also let someone know where you are taking the club, when you expect to arrive and when you will return.

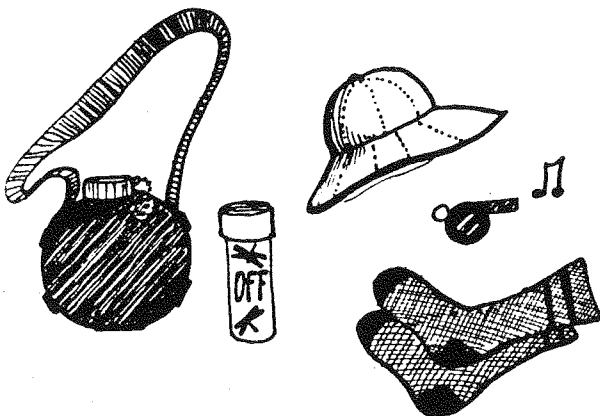
The general rule in low-impact hiking or nature studies is to "take only pictures, leave only footprints."

Generally we don't ask members to pick plants, capture butterflies or trap bugs. On the occasions that we do, it is essential they never take the last specimen or one of only a few. Nor is it necessary for every member to pick a plant, even when there are lots.

Stop and look around before you act. If there are only a few of a particular type of flower or plant, ask someone to sketch it or take a picture of it. Have the members take a close look, without damaging the plant. It will sharpen their powers of observation.

All good hikers follow the basic rule of "pack it in, pack it out." Every piece of gum, every candy wrapper and bit of toilet paper you take into the forest or along the trail should be brought back with you and put in the garbage at home.

You must also emphasize to members that they are to stay together and stay on the path.



### Basic Gear

To Wear:

Hat with a brim all around  
Sturdy shoes  
Thick socks  
Waterproof jacket & hood  
Watch

Small day pack to carry:

Water  
High energy snack\*  
Notebook and pencil  
Sunglasses & sunblock  
Insect repellent  
Whistle  
Litter bag

\* See page 20.

## COMING TO YOUR SENSES

(15 minutes)

Have the members sit quietly for 5 minutes and concentrate on what they can see, hear and smell around them. After the quiet time, ask members to identify what they heard, saw or smelled.

If they aren't able to identify a bird call, the sound of a frog peeping or whatever, it's a good opportunity for your guest speaker to give an introduction to the area you are about to visit, highlighting the things members can keep an eye out for.

This activity will be repeated at the beginning of each meeting.

## QUESTION HIKE

(30 minutes)

The purpose of this activity is to get members to look carefully at what's around them.

Before the meeting the leader will have chosen a route for a 20 minute hike. It would be great if the route were circular, that is it ends up where it began.

There should be 12 numbered stations, more or less depending on the area. Look for interesting places to set the trail markers or stations, such as old stumps, dead trees, groundhog holes, ant hills or gullies. At each station, tack a sheet with one question about the object or area around the marker or station. The questions can be anything, such as "Who lives in this log?" "How old is this tree?" "How many different plants can you see in this marked-off square?" "What is the largest object directly north of this spot?"

Divide your members into small teams and give each team a clipboard, paper and pencil so they can answer the questions at the stations. When they are ready, send the teams off down the trail, staggering the start times.

Each member is also to pick up one piece of litter they see along the trail and bring it back with them.

## SNACK ATTACK

(20 minutes)

When members have reached the end of the trail, it's time for a snack and a drink while you review their answers to the Question Hike. You don't have to go over each team's answer to every question, but make sure each question is dealt with and each team has some input.

Don't forget to ask the members if there was anything else they saw on the hike that they found interesting.

Members may want to make their own high energy snacks. Here are a couple of recipes.

### Trail Mix

250 mL honey  
200 mL skim milk powder  
250 mL oatmeal  
125 mL crunchy peanut butter  
125 mL chocolate or carob chips  
125 mL wheat germ  
125 mL raisins  
125 mL sesame seeds

1. **Mix** all ingredients together.
2. **Roll** into small balls or press into a square cake pan, chill and cut into small pieces.

### Deluxe GORP (Good Old Raisins and Peanuts)

250 g each unsalted peanuts, raisins, sunflower seeds, dried banana chips, flaked coconut, dried apricots, pumpkin seeds.

1. **Mix** and put in a plastic container.

## BEFORE THE NEXT MEETING

(5 minutes)

1. Put together your basic walking pack as discussed earlier in the meeting.
2. Find out how many of your paces or steps it takes to go 10 metres.

## DIGGING DEEPER

### **Optional information for Senior Members**

Nature operates by a series of ecological principles or concepts. These principles are like the parts of an engine, each one of which has a job that it repeats continually. In the next three meetings we will be discussing the six ecological principles that keep nature's engine running smoothly.

#### **Principle 1: Four Elements of Life**

Ask your Senior Members what they can't live without. Then, using a flipchart or a large piece of paper pinned to the wall or somewhere else convenient, write down their answers.

Once they have run out of answers, ask members to prioritize their answers. Have them decide what the four most important categories are on the list the club has come up with.

Although you may not get them to name the elements exactly, you want to lead the discussion to the four elements of life: sun, soil, water and air. The combination of these four elements affects all animal and plant communities.

#### **Principle 2: Everything is Connected to Everything Else**

At the beginning of the meeting the members did a "chain of life" game. Have them build more chains like those used for that meeting mixer. Ask what happens if one of the elements is taken out of the chain.

# MEETING 2

# OVER IN THE MEADOW

## OBJECTIVES

1. To learn about the ecosystem of a meadow.
2. To begin learning the basics of birdwatching.
3. To introduce members to the idea of habitat.

## PREPARATION AND EQUIPMENT

- The meeting should take place in a meadow area, an open space dominated by grassy growth but which supports a variety of plant and animal life. You may want to explore a hay meadow or a previously cultivated field that is reverting to natural vegetation.

Try to find an area with an old dry stone wall running through it or a pile of rocks or boulders and include that as part of your habitat exploration.

- Invite a person knowledgeable about wildflowers, grasses and wildlife as a guest speaker.
- Basic Leaders Kit, see Meeting One.
- Members to wear basic walker's kit, see Meeting One.
- Bug nets, magnifying glass. The net can be something very simple, like a piece of cheesecloth sewn to a bent metal hanger, a white sheet or cloth strung between two sticks or a net bought from a store. See page 25 for an illustration.
- Extra bags to collect litter.
- Several pairs of big woollen socks.
- Masking tape.
- Reference books on birdwatching, wildflowers and grasses, etc., see list in Meeting One.



## IN A NUTSHELL

Roll Call	5 min.
Orientation	5 min.
Coming To Your Senses	15 min.
Birdwatching Basics	15 min.
Exploring Habitat	30 min.
Snack Attack	10 min.
Grass Whistles	10 min.
Before the Next Meeting	<u>5 min.</u>
	95 min.

Optional: Digging Deeper

## ROLL CALL

(5 minutes)

**Q.** What animals would you expect to find in a meadow? What would their homes look like? What would they eat?

**A.** You may want to ask all three questions or only one. It depends on the size of your club. Keep track of the answers: they'll give you a clue as to how knowledgeable members are about the kinds of animals and plants there are around them. This is a great opportunity to alert members as to the types of things they can be looking for in their exploration of the meadow.

## ORIENTATION

(5 minutes)

Ask members to point south. How did they make their decision? Are they right?

Look at any maps that are available for the area.

## COMING TO YOUR SENSES

(15 minutes)

Have members sit quietly for 5 minutes and concentrate on what they can see, hear and smell around them. After the quiet time, ask members to identify what they heard, saw or smelled.

It would be a bonus if you or a guest speaker can give members some idea of the history of the area they are visiting today. Is it an area that is reverting back from a cultivated area? Was it once part of a forested area? Is it used for pasture? What are the signs of change that members should look for?

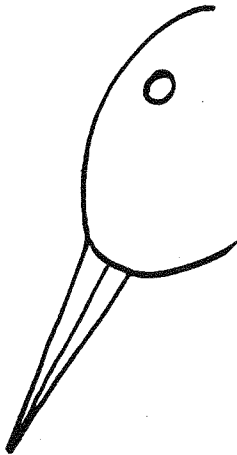
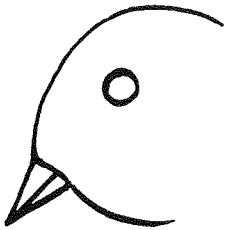
# BIRDWATCHING BASICS

(15 minutes)

If you were trying to describe a friend to someone you might say "skinny, tall, brown hair, blue eyes, freckles and big feet." Birdwatchers also use physical descriptions to help them identify birds.

## When you see a bird:

- Try to estimate the **size** of the bird. Is it the same size as a sparrow, a robin or a crow?
- Describe the shape of its body. Is it plump or slender?
- Sometimes different **body parts** stand out. Does the bird have a crest on its head? Are its legs long or short? Is its tail forked, squared, pointed or cocked up? Does it have a thick beak, a small, pointed beak or a very long, dagger-shaped beak?
- How a bird **moves** can be an important clue.
  - in the water, is it wading or diving?
  - in the air, is it flying straight or up and down? Is it swooping, circling, gliding or hovering?
  - on the ground, is it hopping, walking or bobbing?
  - on a tree, is it hopping up the bark, climbing down headfirst or climbing up in a spiral pattern?
- Some birds have **special colouring or markings** that make them easier to remember. Look for eye stripes, speckled or streaked breasts, wingbars, tail stripes and patches of colour.
- The bird's **location** can help you identify it, too. For instance, you're not likely to find a Mallard Duck in a forest, or a Great Blue Heron in a dry meadow. They're more likely to be found by a lake.



Some birds only live in certain parts of the province, country or continent. It's called their **range**. If you think you have identified a specific bird, check a range map in a field guide just to make sure it actually lives there.

Birds also have unique **songs** or whistles. It's hard to learn about this from a book, but you can try.

Birds don't always show up when you are looking for them so keep an eye open for birds throughout the whole meeting.

# EXPLORING HABITAT

(30 minutes)

Divide the club into teams (change them around from previous pairings) and have each measure off a 10m square **area** and mark it in some way, with back packs or stones.

This will be the area they will explore. Each team is to do the following.

- litter survey (pick up litter and keep track of what is found)
- habitat survey (are there any nests, groundhog holes, burrows, homey looking brush piles)
- plant count (how many different types of shrubs or bushes are there? flowers? grasses?) Identify at least 3 of each category you can find. You can also have members do a Sock Walk to help gather clues. See below.
- animal tracks (Are there any? Of what? Is there an animal trail?)
- insects, crawling or flying. You can do a Bug Sweep as part of this activity. See below.

## Sock Walk

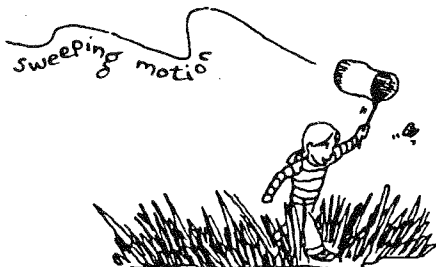
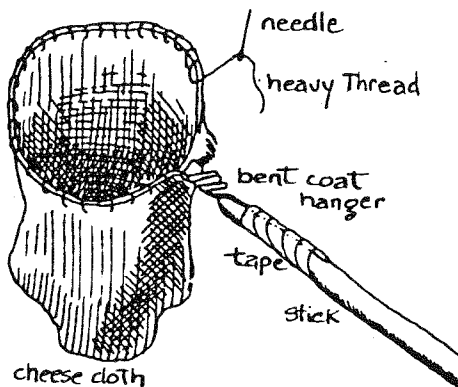
Depending on how many members you have, and how many pairs of socks, you can divide the club into teams and have one team member put on the socks and walk for 10m. Then the fun begins! Each team is to pull off everything that stuck to the socks and try to figure out what it is. Depending on the expertise of your guest, you could have the team members display their pickings and the guest could tell something about them.

## Bug Sweep

The best time for bugs is in July and August, in the early morning and at dusk. As the sun gets higher and hotter, the bugs tend to take a siesta. Have the members take a run across the field (check first to see there aren't any groundhog holes or other traps) and see how many flying insects they can capture. Gather everyone around to check the catch and see how many bugs you can identify.

If you have been lucky enough to find a meadow or field with a dry stone wall or a pile of rocks in it, have one team do a habitat survey here. Remember, these can be home to snakes, so take care when members are poking around.

How to Make a Sweep Net



Drystone walls are those in which stones are fitted skilfully together without any mortar. There are crevices and crannies in all types of wall, and over a period of time soil gathers in these and begins to support plants.

Each team is to choose the most interesting feature from their patch. During the Snack Attack, each team can describe this item to the rest of the club. Your invited guest can also participate.

## SNACK ATTACK

(10 minutes)

Members can eat their snack while they listen to the teams describe the most interesting features of their **areas**. It's also a great time to look for birds.

## GRASS WHISTLES

(10 minutes)

Although it is possible to describe how to make a grass whistle, it is a skill you either have or you don't.

Taking a piece of stiffish grass, 10 cm long, place it upright between your thumbs and then blow. The grass is a lot like a reed in some wind instruments, such as clarinets, and you get a resonating whistle when you blow on it.

Have the members try this with different kinds of grass. Do different types of grass make different sounds? Can members play a tune?

## BEFORE THE NEXT MEETING

(5 minutes)

1. Draw the silhouette of a seagull and a hawk.
2. Learn to whistle one bird song.

## DIGGING DEEPER

### **Optional Information for Senior Members**

**PRINCIPLE #3: There is no such thing as a free lunch.**

This is another example of how everything in nature is related. Divide the group into two teams and, using your flipchart again, or a large piece of paper, ask one team to come up with the names of animals or plants and the other to respond with a name of animals or plants that they connect with the first list.

Your list might look something like this.

<u>Animal</u>	<u>Plant/Tree</u>
worm	apple
bee	flower
bird	tree
horse	grass
snake	log
cat	forest
duck	stream
frog	lily pad
mosquito	human



Naturalists have three terms they use to describe these types of relationships: **Parasite**, where one organism benefits at the expense of the other; **Commensal**, where one organism benefits but is not harmful to the other; and **Mutualism**, where both organisms benefit from each other.

Now ask members for a word to describe the relationship between the two. Your list might now look something like the following.

<u>Animal</u>	<u>Plant/Tree</u>	<u>Relationship</u>
worm	apple	parasitic
bee	flower	commensal*
bird	tree	mutualism
horse	grass	mutualism
snake	log	commensal
cat	forest	commensal
duck	stream	mutualism
frog	lily pad	commensal
mosquito	human	parasitic



\* This could also be a mutualism relationship if the bee is helping with pollination.

**PRINCIPLE #4: All plants and animals are affected by D.A.M. Law**

In order to survive, animals and plants must either **Die, Adapt or Move.**

A Canadian winter is a time of great stress for many animals. Taking a clean piece of paper on your flipchart, make three headings, Die, Adapt or Move. Ask your members for examples of animals' reactions to the winter season.

You might get answers like the following.

Die

insects  
weak or sick

Adapt

rabbits  
frogs  
snakes

Move

ducks  
songbirds  
caribou

# MEETING 3

# IF YOU GO OUT IN THE WOODS TODAY

## OBJECTIVES

1. To learn about the ecosystem of a forest or wooded area.
2. To practice birdwatching skills.

## PREPARATION AND EQUIPMENT

- This meeting should take place in a wooded area. A woodlot is okay, although something with more variety of tree life would be more interesting to members. Look for a rotting log to use in one of the activities.
- Have a wildlife expert or a woodlot manager as a guest speaker for this meeting.
- Basic Leaders Kit, see Meeting One.
- Members to bring basic walker's kit, see Meeting One.
- Blindfolds.
- Large sheets of paper and charcoal.
- If you would like an activity that gets members up and running, consider a game of Hare and the Hounds before your Snack Attack.

The Hares are one team and it is their job to lay a trail for the other team, the Hounds, to follow. The Hares will use cut up potatoes and dried beans to mark a trail. These must be laid in an agreed-upon sequence, such as one potato, two beans, one potato, two beans.

After a 5 minute head start, the Hounds follow, picking up as many potatoes and beans as they can find. Give 5 marks for each slice of potato found and 10 marks for each bean. If you don't find them all, the animals will!

- Three outdoor thermometers. Several days before the meeting, do a test to see how well the thermometers record the temperature. Set them side by side somewhere out of the sun. Wait 10 minutes. They should all give you the same reading but if not, make a note of any variation.

## IN A NUTSHELL

Roll Call	5 min.
Orientation	5 min.
Coming To Your Senses	5 min.
Birdwatching Basics	10 min.
Tree Friends	15 min.
T.N.S.	10 min.
Exploring Habitat	30 min.
Snack Attack	10 min.
Before the Next Meeting	<u>5 min.</u>
	105 min.

## ROLL CALL

(5 minutes)

**Q.** What sort of birds would you expect to see in a forest? Can you whistle their song? (This one is tricky but it could be a lot of fun.)

**A.** Use these questions to lead into a discussion of the types of birds members might see in the forest area. Have members discuss the differences between the silhouettes of the seagull and hawk.

## ORIENTATION

(5 minutes)

Ask members to point east. How did they make their decision? Are they right?

Look at any maps that are available for the area.

## COMING TO YOUR SENSES

(15 minutes)

Have members sit quietly for 5 minutes and concentrate on what they can see, hear and smell around them. After the quiet time, ask members to identify their experiences. This is a good opportunity for a guest speaker to give an introduction to the area you are about to visit, highlighting the things members can keep an eye out for.

## BIRDWATCHING BASICS (10 minutes)

Briefly review the birds you might see in a forested area, and what sorts of nesting habits they have.



## TREE FRIENDS

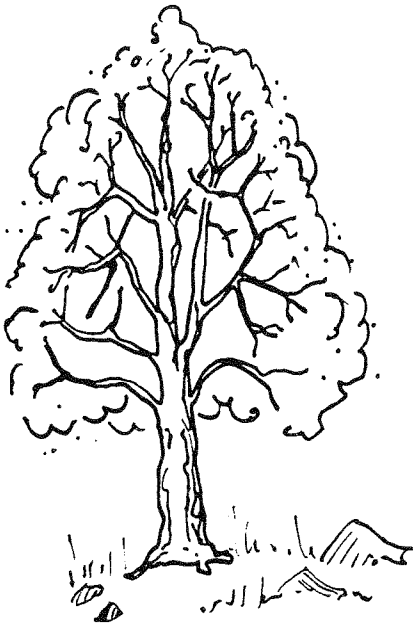
(15 minutes)

To identify a tree, you have to know where it is growing and be able to describe some of its physical characteristics such as:

- type of bark
- type of leaf
- flower/fruit/nut
- height.

This activity encourages members to really think about the characteristics of a tree and its similarities and differences compared to other types of trees.

Pair members off into teams. One member of each team is blindfolded and led to a tree by his or her partner. You want members to get to know their own trees so well that they could pick them out of a whole forest. Keep the members as close together as you can, so they can hear the following series of questions.



- How many "hugs" big is your tree?
- What does the bark feel like?
- What are the leaves like?
- Are there any low branches?
- What neighbours does it have?
- Is there anything else growing on it?
- What does the bark smell like?
- Are there crushed leaves?

After the members have had a chance to get to know their tree friends, have their partners bring them back to the starting point and remove their blindfolds. The challenge is now to find their trees again!

Now blindfold the other partner and repeat the exercise.

After this you may want to have members take a bark rubbing of their tree friend. To do this they place a piece of paper against the bark and rub over the paper with the charcoal, pressing fairly hard. This gives a good impression of the tree's bark which can be used to help identify other trees.

## T.N.S. - TEMPORARILY NOT SOIL

(10 minutes)

The forest is a great place to see the process of regeneration in action. Everything here is constantly changing and becoming something else. For example, a tree dies and provides food and a home for fungus and insects until it is broken down and becomes soil.

The soil then feeds other plants, which grow, reproduce, die and turn into soil themselves. Even such hard things as rocks are gradually broken down into soil.

A rotting log is a great place to see the variety of life that lives in a forest. Before the club begins its exploration, though, make sure the log is not providing a home for any animals. Thwack it with a stick several times and wait. Even then, take care when the members are looking at it.

Here are some of the observations the members may want to record when looking at a rotten log.

- What species of tree did the log come from?
- Where did you find it? What was it next to? How do you think it got there?
- Where is the stump of the tree?
- Did the tree die naturally or by other means?
- How long has this tree been dead? How old was it when it died?
- Is the bark still on it?
- Is the inside firm or rotten? Can you push a pencil through it?
- List any animals you see living in or on the log.
- List the plants you see living in or on this log?

## EXPLORING HABITAT

(30 minutes)

Divide the club into teams (change them around from previous pairings) and have each measure off a 10m square **area** and mark it in some way, with back packs or stones.

This will be the area they will explore. Each team is to do the following.

- litter survey (collect and record any litter)
- habitat survey (are there any nests, burrows, homey looking brush piles, likely looking nests in trees?)

- plant count (how many different types of trees, shrubs or bushes are there? flowers? grasses?) Identify at least 3 of each category you can find. The plant count will vary, depending on the season.
- animal tracks (Are there any? Of what? Is there an animal trail?)
- insects, crawling or flying. Identify any you can.

If you are exploring a woodlot, have members discuss how they feel it might differ from a naturally forested area.

Give three of the teams thermometers and have them place them inside their marked off squares. One team is to place the thermometer as high up a tree as possible, another team on the forest floor, under some leaf litter, and another in a relatively open area. At the end of this activity, have the team members compare the temperatures recorded. Depending on the type of day, you could have a temperature variation as high as 10 degrees.

Each team is to choose the most interesting feature from their patch. During the Snack Attack, each team can describe this item to the rest of the club. This can also be an opportunity for your invited guest to participate.

## SNACK ATTACK

(10 minutes)

Members can eat their snack while they listen to the teams describe the most interesting features of their **areas**. Keep your eyes open for birds or other animals.

## BEFORE THE NEXT MEETING

(5 minutes)

1. Take a walk of about 1 km, either in the city or the country and count the number and variety of trees you see. Try to name them all or bring in a clue for those you can't name.

## DIGGING DEEPER

### **Optional Information for Senior Members**

#### **PRINCIPLE #5: Everything must go somewhere.**

This can also be called the "Temporarily Not Soil" principle. In the end, everything turns into soil, which then feeds other plants and animals and we start all over again.

Have members list the many plants and animals that can live off a rotten log.

#### **PRINCIPLE #6: All plants and animals have a "home."**

For plants and animals, a home is both a habitat, or community in which they live, and a niche in the chain of life, or the job they perform.

For example, the job of a deer mouse is to eat grass seeds. The niche of poison ivy is to hold down the soil and provide food for birds in winter.

As a short activity, have members come up with a list of animals and plants, describe their habitat and their job.

Take one example, perhaps a rabbit, and have them describe in more detail the type of habitat it would need and why. What would the perfect habitat for a rabbit be like?

### **Best Management Practices - Farm Forestry and Habitat Management**

Many farmers are reversing practices almost two centuries old and returning parts of their land to forest. They're doing it because it's good for business and good for the land. The benefits of forested areas include:

- shelterbelts and windbreaks
- erosion control

- wildlife habitat management
- woodlot management.

Using the topographical maps you have available, have members try to identify areas they know to be reforested or managed, rather than naturally forested.

# MEETING 4

# WATER RATS

## OBJECTIVES

1. To learn about the ecosystem of water.

## PREPARATION AND EQUIPMENT

- This meeting can take place at any body of water: wetland, lake, river or stream. Try to choose an area that has an accessible shoreline and will not be harmed by the activities taking place during the meeting. It would also be good if the members were able to step into the water safely. To heighten the learning experience, compare two water areas.
- Keep safety uppermost in your mind during this meeting. Ensure that no member wanders off alone or works alone on the shoreline. If you have a lot of younger members, and not enough supervisors, consider having members wear lifejackets. Assign Youth Leaders or Senior Members to work with groups of younger members.
- Someone who has special knowledge of water ecosystems would be an exciting guest speaker.
- Basic leaders kit, see Meeting One.
- Members to wear basic walkers kit, with the addition of rubber boots, see Meeting One.
- If you want members to make a waterscope for their habitat explorations, you'll need a knife, a large plastic container such as an ice cream or yoghurt container, some clear plastic wrap, a strong elastic band. Or you can use a large glass jar.
- For the Tippy Canoe you will need: scissors or x-acto knife; markers; darning needle; fine, strong string; glue stick.
- Buckets, nets, outdoor thermometers (as many as you can get), watch with a second hand, cork, a piece of bark or other floating object.

## IN A NUTSHELL

Roll Call	5 min.
Orientation	5 min.
Coming To Your Senses	15 min.
Birdwatching Basics	10 min.
Exploring Habitat	30 min.
Snack Attack	10 min.
Tippy Canoe	30 min.
Before the Next Meeting	<u>5 min.</u>
	105 min.

Optional: Judging Activity  
Digging Deeper

## ROLL CALL

(5 minutes)

**Q.** Name a body of water within 10 km of this meeting.

**A.** Members will likely want to know what counts as a body of water: river, lake, pond, wetland.

Once the members have answered then ask which body of water is the biggest, smallest, cleanest, deepest, largest, etc.

## ORIENTATION

(5 minutes)

Ask members to point west. How did they make their decision? Are they right?

While members are looking at a map of the area, have them trace the origin of the piece of water they will be exploring today.

## COMING TO YOUR SENSES

(15 minutes)

Members will sit quietly for 5 minutes and concentrate on what they can see, hear and smell around them. After the quiet time, ask members to identify what they heard, saw or smelled.

## BIRDWATCHING BASICS

(10 minutes)

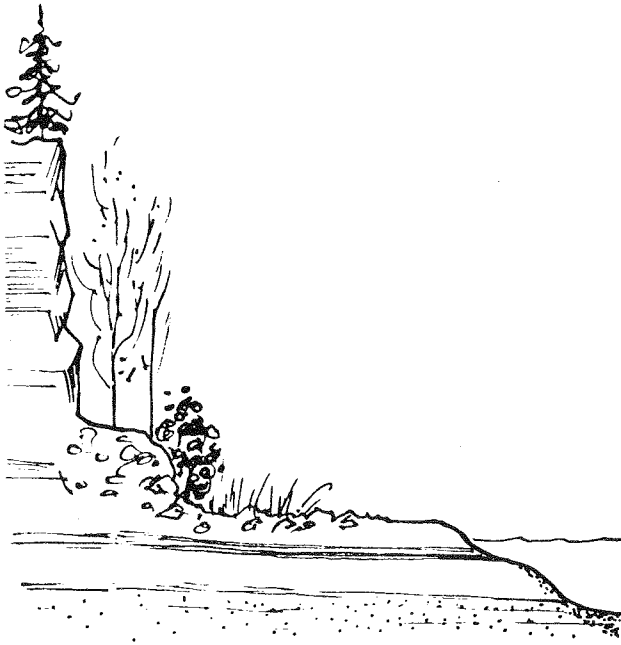
Briefly review the birds you might see in a wetland area and what sorts of nesting habits they have. Are there any birds nesting here at the moment?

## EXPLORING HABITAT

(30 minutes)

### On The Shoreline

There's such a lot to look at along the shoreline of a river or lake or on the margins of any wetland. Here's what to keep an eye out for.



- Look at the changing height profile of the vegetation, as well as the transition from tall, woody plants to herbaceous plants.
- What are the effects of water flow on the bank or shoreline. How many trees have fallen down, their roots undercut by the flow of the water? Is the area of the water expanding or contracting? How can you tell?
- What is the soil like? Does it change on the river's bottom? Is there a lot of silt in the river?
- If you are exploring a river, which way is the current flowing? (You may want to save this question and discover the answer once you have made your canoes.)
- How do animals use this water source? Is it easily accessible? Can you find any tracks?

Before your teams begin exploring the shoreline, mention that they will be building a canoe later in the meeting. The objective is to build it out of "found" materials they may pick up during their explorations. This could also be part of their judging exercise, so indicate the categories now. They could be simplest, most sailworthy, most beautiful, largest or whatever.

You may want to have teams participate in the gathering of materials and the building of canoes. If so, this is the time to make up your teams, preferably with Senior and Junior members on each team.

Have these same teams measure off a 10m square **area** and mark it in some way, with back packs or stones. You could have some teams explore the habitat of the shoreline, while other teams work in the water. Alternatively, each team could explore part of the shoreline. You also have the option of having the teams compare two streams or ponds.

This will be the area they will explore. Each team is to do the following.

- litter survey (collect and record any litter found)
- habitat survey (are there any nests, burrows, what's among the reeds)
- plant count (how many different types of trees, shrubs or bushes are there? flowers? grasses?)



How far do plants grow into the water? Identify at least 3 of each category you can find.

- animal tracks (Are there any? Of what? Is there an animal trail?)
- insects, crawling or flying. Identify any you can.
- what's in the water? Can you see fish, bugs, snakes? Is the bottom sandy, gravelly or mucky?

Using their nets or waterscopes, members can also make an inventory of things they find at different levels in the water. They would probably have to have a 2-foot depth to explore. Have members list what they can see floating on the top, about a foot under water and what they can see on the bottom.

Have different teams take the water temperature close to the shore, a distance from the shore, in the shade and in the sun, .5m from the surface, .5m below the surface, 1m below the surface.

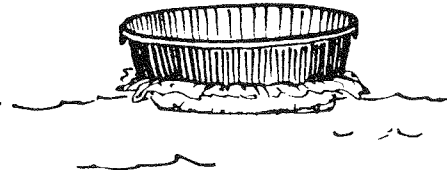
If the water is moving, measure how fast it is going. You can do this after you have built the canoes or using a cork. Mark off 5m, and time how long it takes an object to travel the distance. Do this three times and calculate the average time. Divide the length by the average time to give velocity.

Each team is to choose the most interesting feature from their patch. During the Snack Attack, each team can describe this item to the rest of the club. This can also be an opportunity for your invited guest to participate.

### **Waterscope**

Before you start the habitat exploration, you might want to have the members make a waterscope. This is what you'll need:

- a knife
- a large plastic container such as an ice cream or yoghurt container
- some clear plastic wrap
- a strong elastic band.



Cut the bottom off the plastic container. Stretch the clear plastic over the bottom and secure it with a strong elastic band. Lower the plastic-covered end into the water. It should be watertight enough so you can hold it several inches into the water and get a clear view of what's going on down there.

Alternatively, you could use a large glass jar for the waterscope.

This waterscope will help you see what's on the bottom of the river or pond.

## SNACK ATTACK

(10 minutes)

Members can eat their snack while they listen to the teams describe the most interesting features of their **areas**. It's also a great time to look for birds.

## TIPPY CANOE

(30 minutes)

Supplies:

- variety of "found" objects
- a pencil
- scissors or x-acto knife
- darning needle
- fine, strong string
- glue

Members are to combine the found objects to make a canoe – or anything they think will float. When the canoes are completed, and after the judging activity if its being done, have a race to see which is fastest and how many make it to the finish line.

You may have to have a few practice runs to weed out those boats that won't float!

## JUDGING ACTIVITY

(Optional)

This is an opportunity to practice members' judging skills. Have them establish 3 categories (most sailworthy, most beautifully decorated, smallest, for example) and judge the canoes produced here.

## BEFORE THE NEXT MEETING

(5 minutes)

1. Stake out a 0.5m square area in the garden, either a flower garden or vegetable garden. How many living things can you find in this patch? Remember that you're only counting and you have to put everything back.

## DIGGING DEEPER

### **Optional Information for Senior Members**

Even though you can't see it, all the bodies of water - lakes, wetlands, rivers, streams and creeks are all connected within watersheds. That means they all join up at some point and drain into the same body of water.

When we are dealing with the control of runoff, pollution or habitat protection, we don't just look at one stream or river or lake, instead we have to look at the entire watershed.

Using maps, try and figure out how the body of water you are meeting at fits into the watershed of the area.

### **Over the Edge**

Looking carefully at the plant growth on the water's edge is an easy way to understand the effect of the environment on plants. Have senior members, working in pairs or small groups, describe the plant profile 5 metres from the water's edge to 1 metre into the water (if this is safe). Stake out a corridor 2-3m wide for each team. Measure the height of the plants and identify them as far as possible. They could also sketch the profile from a distance. Repeat the investigation further along the shoreline or where there is a change in vegetation.

# MEETING 5 WILDLIFE DOWNTOWN

## OBJECTIVES

1. To learn about the ecosystem of an urban park.
2. To see the similarities and differences between natural areas and the urban "wild."

## PREPARATION AND EQUIPMENT

- Although any kind of urban park will do here, do not choose one that is just an open field with some swings, as there will be very little scope for exploration. In the absence of a good park, find a vacant lot inside the city limits. Check with owners or City Hall before you hold the meeting.
- Consider having someone from the Parks Department as a speaker.
- Basic leaders kit, see Meeting One.
- Members to wear basic walkers kit, see Meeting One.
- Map of the park or city area.
- Sheets of paper on which to write clues for Scavenger Hike.

## IN A NUTSHELL

Roll Call	5 min.
Orientation	5 min.
Coming To Your Senses	15 min.
Birdwatching Basics	10 min.
Exploring Habitat	25 min.
The Perfect Park	15 min.
Snack Attack	20 min.
Scavenger Hike	20 min.
Before the Next Meeting	<u>5 min.</u>
	120 min.

Optional: Digging Deeper

## ROLL CALL (5 minutes)

**Q.** What do you like best about a park?

**A.** Parks are built for people to enjoy but everybody enjoys something different. Keep track of the different things members like to do in parks. This will help in their designing activity.

## ORIENTATION

(5 minutes)

Ask members to point west. How did they make their decision? Are they right?

Have members look at a map of the city or town and locate the park or lot they will be exploring. Is this the only space available for recreation for those people living around it? How many people use the park? How many are there now, not counting 4-H members? What are people using most?

## COMING TO YOUR SENSES

(15 minutes)

After sitting quietly for 5 minutes, ask members to identify what they heard, saw or smelled.

## BIRDWATCHING BASICS

(10 minutes)

Briefly review the birds you might see in an urban area. Are they likely to be nesting in the park? If not, where would they be coming from?

## EXPLORING HABITAT

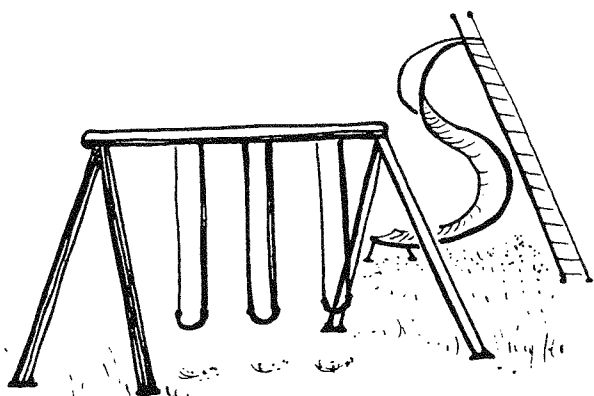
(25 minutes)

Divide the club into 4 teams (change them around from previous pairings) and divide the park into quadrants.

This will be the **area** they will explore. Each team is to do the following.

- map their quadrant, indicating paths, flower beds, playground equipment, bandshells, water, etc.
- do a litter survey, how many garbage cans are there, where is the garbage - in the can or on the ground
- habitat survey (are there any wild areas, nests, burrows)
- plant count (how many different types of trees, shrubs or bushes are there? flowers? grasses?)  
Are there any areas that have been left to grow naturally or are they all growing in tended beds? Identify at least 3 of each category you can find.
- animal tracks (Are there any? Of what?)
- insects, crawling or flying. Identify any you can.

Each team is to choose the most interesting feature from their patch. During the Snack Attack, each team can describe this item to the rest of the club. This can



also be an opportunity for your invited guest to participate.

## THE PERFECT PARK

(15 minutes)

Having completed the mapping of their quadrant, have members add features they think would improve the park, making it a good place for people, plants and animals. Would it be a good idea to cultivate or protect habitat for rabbits or deer in the park? What sort of animals do they want to encourage in the park? Is it practical?

## SNACK ATTACK

(20 minutes)

During the Snack Attack, each team can report on their explorations of their **areas**. This time can also be used to present information about the Ontario park system.

### Ontario Provincial Parks

Algonquin Park was established in 1893 as "a public park and forest reservation, fish and game preserve, health resort and pleasure ground" for the benefit of people of the province. It was the beginning of the Ontario provincial parks system.

Today, Ontario's 259 provincial parks cover 6.3 million hectares, or 6% of the province's total land and water base, enjoyed by almost 8 million visitors a year.

There are six classes of provincial parks: wilderness, nature reserve, historical, natural environment, waterway and recreation.



PARC PROVINCIAL

**Wilderness Parks** are large areas left to nature where visitors can only travel on foot or by canoe.

Development is limited to back-country campsites, portages, trails and necessary route signs. There are 8 Wilderness Parks in Ontario, mainly in the northern part of the province. The Wilderness Parks are: Polar Bear, Opasquia, Woodland Caribou, Wabakimi, Kesagami, Quetico, Lady Evelyn-Smoothwater and Killarney.

There are 83 **Nature Reserves** that protect natural landforms such as Ouimet Canyon near Thunder Bay, and Potholes between Thunder Bay and Sudbury or other rare places that are protected for educational and scientific research.

**Historical Parks** are areas selected to represent the distinctive historical resources of the province. There are four Historical Parks, protected for interpretive, educational and research purposes. They are: Serpent Mounds, Petroglyphs (both near Peterborough), Quackenbush (near Huntsville) and Michipicoten (near Sault Ste. Marie).

**Natural Environment Parks** and **Waterway Parks** provide high-quality recreational and educational experiences. There are 63 Natural Environment Parks in Ontario, including Rondeau, The Pinery, Presqu'île, Bon Echo, Algonquin and Arrowhead in southern Ontario and The Shoals, Halfway Lake, Middle Falls and Tidewater in northern Ontario. The 29 Waterway Parks include Lower Madawaska River, Oxtongue River-Ragged Falls and Bonnechere in eastern Ontario, Severn River in central Ontario and Fawn River and the Albany River in northern Ontario.

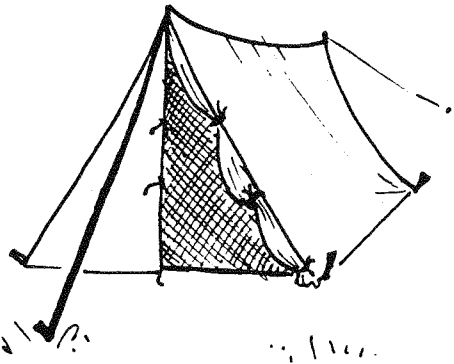
There are 73 **Recreation Parks**, providing a wide variety of outdoor recreation opportunities for large numbers of people. These parks, which include Port Bruce, Darlington, Carson Lake and Six Mile Lake in southern Ontario and Aaron, Calipar Lake, Kettle Lakes and Windy Lake in northern Ontario, generally offer more facilities for families than Natural Environment Parks and the focus is on "recreation," even though they are situated in natural areas. A Recreation Park might have comfort stations, playground equipment, laundry facilities and showers.

Ontario's Ministry of Natural Resources (MNR) is responsible for the inventory, disposition and protection of natural resources in the province.

### **Federal & Municipal Parks**

There are also other parks systems in Canada, run by the federal and municipal governments.

Canada was the first country to have a national parks service, which was set up in 1911. Today it is one of the most sophisticated in the world.



There are three types of parks run by Parks Canada.



**National Parks:** There are 18 across Canada, including Georgian Bay Islands, Bruce Peninsula (including Fathom Five, a National Marine Park), Pukaskawa, St. Lawrence Islands and Point Pelee.

**National Historical Sites:** These commemorate a person or place of national significance and include buildings and plaques. Their purpose is to protect and preserve sites and to educate Canadians. In Ontario, Woodside, Fort Malden, Niagara and Bethune Memorial are National Historical Sites.

**Canals:** There are three canal systems in Ontario run by Parks Canada; Rideau, Trent-Severn Waterway and Sault Waterway.

Most **municipalities** have parks to provide recreational areas for their citizens. These parks can include bicycle and walking paths, tennis courts, playgrounds and gardens. In the past municipal parks have always required a high degree of maintenance: the grass was cut, flower beds cleaned and replanted regularly and walkways kept clear. Today many municipalities are experimenting with leaving some areas in a more natural, untended state to encourage more wildlife, provide a greater variety of flowers and grasses and to cut down on maintenance costs.

## SCAVENGER HIKE

(20 minutes)

You've got to make this tricky, so the clues have to be diabolical. Here are some examples. The number of clues, the search area, the length of time allowed and the size of the teams are up to you.

### Sample Clues:

- 1 sample of something that is one part oxygen and two parts hydrogen
- 1 leaf from a deciduous tree
- 1 handful of the foundation of life (soil)
- 1 piece of a thing that makes sugar out of sunlight
- 1 piece of litter
- 1 leaf 30 times long as wide (grass)
- 1 name of a flower



## BEFORE THE NEXT MEETING

(5 minutes)

1. Junior members are to look after the invitations for campfire night.
2. Senior members are to come up with short skits or songs to perform during campfire time at the next meeting.
3. Senior members are to learn to identify the Big Dipper, the Little Dipper, the North Star and one other constellation of their choice and be prepared to help junior members find these constellations at the next meeting.

## DIGGING DEEPER

### **Optional Information for Senior Members**

Divide the Senior Members into two teams. The first team is to devise a route through the park and put together a Question Hike, as in Meeting One, but with a twist. They are to have 12 stations and at each station they are to have 2 answers. It is up to the team following to come up with the questions.

# MEETING 6

# NIGHTTIME MAGIC

## OBJECTIVES

1. To learn about the wild side of nightlife.
2. To learn to identify at least one constellation.

## PREPARATION AND EQUIPMENT

- You might want to have two experts at this meeting, a naturalist who is familiar with animal nightlife and someone who knows something about the stars. Many provincial park interpretive centres, Conservation Authorities or similar organizations have special nighttime events you could consider joining.
- When choosing a site for your nighttime meeting, consider a family campground, outdoor centre or park, or someone's back yard. Be sensitive to the fears some of the younger members may have.
- Many newspapers carry a column on "The Nighttime Sky," outlining what you can expect to see at any given time of the year. There are also lots of great books in the library. Look in the astronomy section.
- Consider asking the parents/guardians of members to participate in this meeting. It will certainly make looking after younger members a lot easier.
- Basic leaders kit, see Meeting One.
- Members to bring basic walkers kit, see Meeting One.
- Flashlights, lanterns or something similar.
- A campfire is optional for this meeting. If you are having a campfire, organize a team to be in charge of gathering firewood, taking care of the fire and putting it out. For your snack, keep it simple. Roasting marshmallows and hot dogs may be old-fashioned, but everybody likes them.

If you don't want the hassle of a fire, but would still like to stay out, have lanterns or patio candles provide the light and the illusion of warmth.

- Even if you don't have a campfire, you may want to have a more elaborate snack here, and have a period for everyone to sing along and maybe even tell ghost stories. Or, to keep with the naturalist theme - bear stories!

## IN A NUTSHELL

Roll Call	5 min.
Orientation	5 min.
Coming To Your Senses	15 min.
A Walk in the Dark	15 min.
A Night With the Stars	30 min.
Snack Attack	10 min.
Campfire	20 min.
Before the Achievement Program	<u>5 min.</u>
	105 min.

## ROLL CALL

(5 minutes)

**Q.** What do you like the best about being outside in the dark?

**A.** Don't let this degenerate into a catalogue of horrors!

## ORIENTATION

(5 minutes)

Ask members to point north-east. How did they make their decision? Are they right? Where is the North Star?

## COMING TO YOUR SENSES

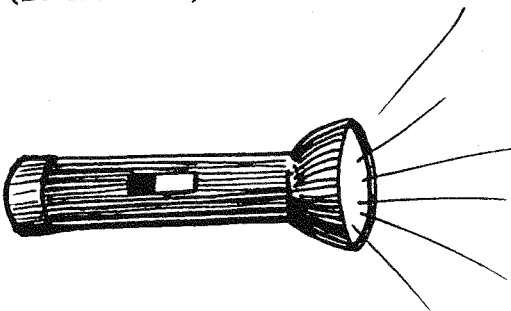
(15 minutes)

Members will sit quietly for 5 minutes and concentrate on what they can see, hear and smell around them. After the quiet time, ask members to identify what they heard, saw or smelled.

## A WALK IN THE DARK

(15 minutes)

It can be very difficult to see wildlife during the day but this is more so during any nighttime walks. Have your guest speaker lead a short hike. The objective here is not to walk a long way, or expect to see anything much, but just to let members see how dark it really gets, what senses they have to rely on in the dark and to increase their comfort level with being outside at night.



Depending on the location of this meeting, you may prefer to remain sitting at your campsite, turn on the flashlights, lanterns and candles and talk about the flying insects that are attracted to the lights and what else might be out there.

## A NIGHT WITH THE STARS

(30 minutes)

Even though they lived thousands of kilometres and years apart, both North American Native people and ancient Greeks saw a bear in the stars around the Big Dipper. Nowadays, the constellation is called Ursa Major, the Great Bear.

Younger members will have a difficult time finding the constellations so concentrate on only 3 or 4. Have Senior Members, Youth Leaders, or anyone else who knows what to look for help members who don't. There is a map of the summer sky included in this guide on page 51.

## SNACK ATTACK

(10 minutes)

Depending on your arrangements, members (and their guests) can have their snacks during the campfire program.

## CAMPFIRE

(20 minutes)

It's time for members to strut their stuff!

## BEFORE THE ACHIEVEMENT PROGRAM

(5 minutes)

1. Review the plans for the Achievement Program. Make sure each member is aware of his/her responsibilities.

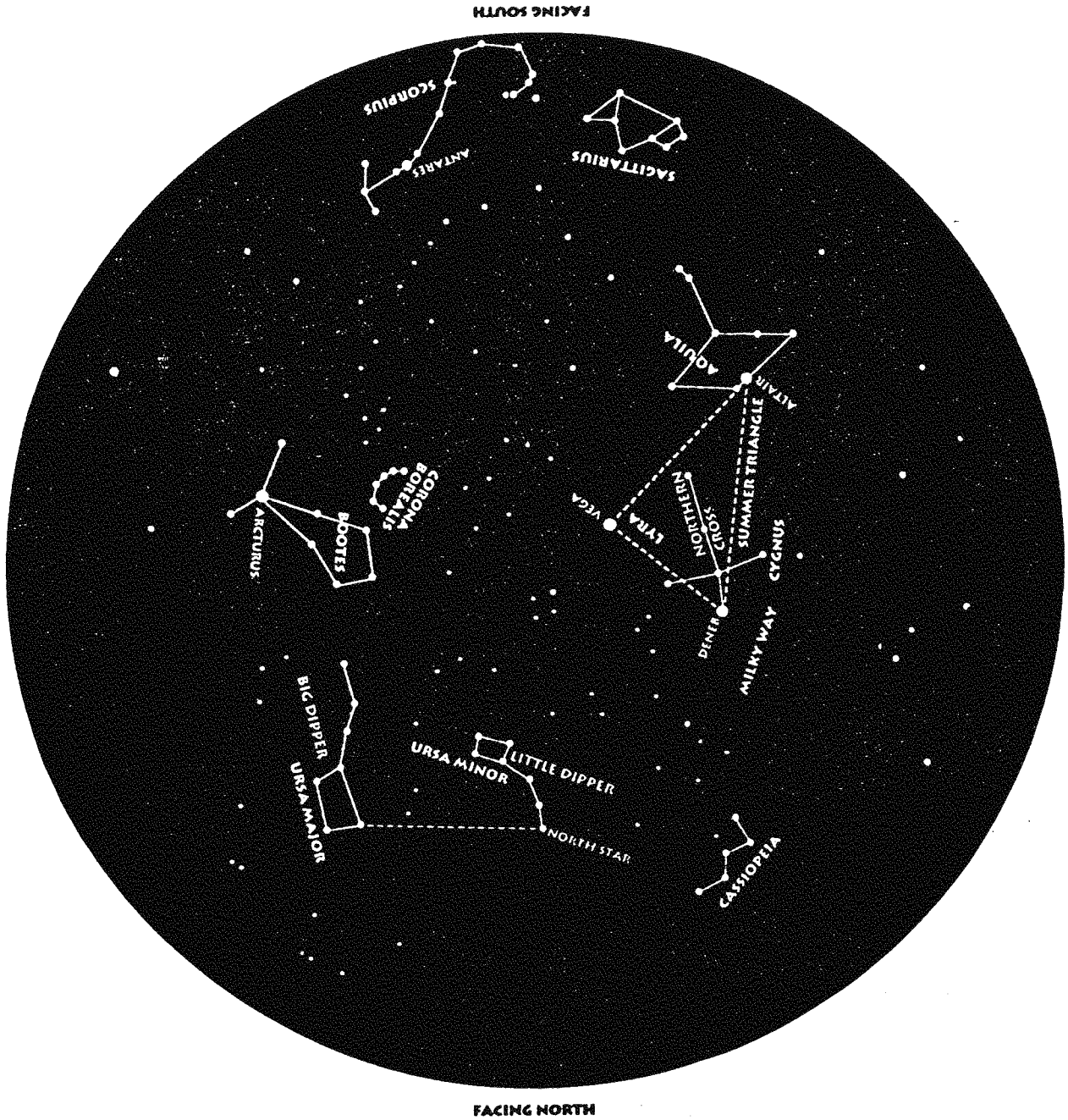


Illustration: The Kids Cottage Book; Jane Drake and Ann Love; Kids Can Press Ltd., Toronto; 1993.

# RAINY DAY ACTIVITIES

You can probably count on having at least one meeting rained out during your club's existence. Don't despair and remember, nature is there to enjoy in all kinds of weather.

If it's not raining too hard, consider spending some of the meeting time outdoors. Your members won't melt and if they dress for the weather, it can actually be a lot of fun. In the interests of science, you could have all the members take their boots and socks off and walk in the mud. Just what does that mud feel like?

The same philosophy goes for a winter club. Even though it's cold outdoors, you can still have a good time trekking through the snow. It gives you a unique opportunity to see how animals and plants survive the winter. Build a snow fort or an igloo and see how cosy they can be. Think about holding your meeting inside one, or if your group is small enough, under a big evergreen tree. Dig under the snow and see how the plants are doing. Count the number of bushes that have berries or seeds still on them. There's always something to do outside, it just takes some imagination.

## Create-A-Bird

Yellow-bellied sapsucker. Red-winged blackbird. Blue-footed booby. Birds can have some pretty strange names but they usually relate to some physical characteristic of the bird. Using bird books as references, have members draw and colour different parts of different birds and put them together. They have to present their creations to the club, along with their fantastical name for the bird and the reasons for their adaptations.

## Pond Life

Bring in several large buckets of pond or swamp water. Make sure there is some plant life, as well as insects in your sample. Carry out all your water activities using these samples. Remember to return the water to its origin when you're done.

## A Taste of Nature

For an exercise in taste testing you will need a variety of things to taste, both natural and from the kitchen. **Make sure everything is safe to taste.** You might include winter green leaves, pine needles, berries, oak gauls, lemons, limes, potatoes, carrots, etc. You will also need blindfolds, nose plugs and toothpicks.

Each person is allowed to taste different objects but they are not allowed to smell the objects, see the objects or touch them with their fingers. That's where the nose plugs and toothpicks come in. Have the objects set up at different stations and have a person there to record the guesses!

## Blindfold Surprise

Get together an assortment of natural and man-made objects, including fungus, leaves, stones, driftwood, bark, tin can, pine cones, buttons, pine needles, and put them in individual bags. You will also need some blindfolds.

Have the group sit in a circle blindfolded and give each person an object. They are to try to figure out what the object is before passing it to the left. Allow about 15 seconds before asking them to pass on the object. At the end, show the group the objects.

## Make Yourself A Star

You don't have to sit out in the summer sky to see the stars. You can make a little night-time magic yourself! All you need is:

- fluorescent paint (available in most craft, hobby or toy stores) and paintbrushes
  - cardboard and scissors
  - thin string, strong thread or fishing line
  - tape
  - a book on the stars.
1. Using the cardboard, cutout a lot of star shapes and paint them, using the fluorescent paint.
  2. Look at your book on the stars. Choose a constellation that you like and position your cutouts accordingly.

3. You can either make a mobile with these stars or tape them on the ceiling or wall.
4. Turn out the lights and it's up to other club members to guess the constellation you have made.

## **Making a Birdfeeder**

There are lots of different birdfeeders you can make on a rainy or wintry day. Here are a few of them.

### **Onion bag feeder**

You'll need:

- suet
- net bag, like the one onions are sold in
- 30 cm of string
- birdseed.

1. Melt the suet and cool. If you don't have suet, you can melt beef fat. Do not use bacon fat because it is too salty.
2. When cool but not really hard, shape the suet into a ball the size of a tennis ball and roll it in birdseed.
3. Place the ball in the net bag and hang it from a branch with the string.

### **Pine cone feeder**

You'll need:

- suet
- peanut butter (optional)
- pine cones (the short squat cones of red pine work well)
- an eye-screw
- 30 cm of string or thin, bendable wire.

1. Melt the suet and cool. If you don't have suet, you can melt beef fat. Do not use bacon fat because it is too salty.
2. Roll the pine cone in the suet or a mixture of suet and peanut butter so that the nooks and crannies are filled. It can then be rolled in birdseed if you like.



3. Insert an eye-screw in the top of the cone.
4. Attach a string or wire to the eye-screw and hang your feeder from a branch.

### **Coconut feeder**

Some birds will eat the coconut meat from this very special feeder, but you can also fill the hole with seed as an added treat.

You'll need:

- one coconut
- a hand drill
- a small saw
- 1 - 1.5 m of thin, bendable wire.

Experience using these tools or an experienced helper will be needed to make this feeder.

1. Drill a hole in the coconut and drain out the milk.
2. Cut a quarter off one end of the coconut, using the saw.
3. Drill two holes near the cut edge, one on either side. Thread the wire through the holes so that the coconut can be hung from a branch.

### **Suet log feeder**

This feeder is a woodpecker's dream!

You'll need:

- a small birch or poplar log, about as long as your arm and a bit thicker
- a hand drill
- an eye-screw
- 30 cm of strong, bendable wire
- suet.

1. Melt the suet and cool. If you don't have suet, you can melt beef fat. Do not use bacon fat because it is too salty.

2. As the suet is cooling, drill several holes 1-2 cm deep and 2.5 cm wide around your log. To get holes this big, use the largest drill bit and then enlarge the hole around the edges.
3. Attach an eye-screw to one end of the log.
4. Fill the holes with suet.
5. Hang the log with wire from a branch.

## Making a Spore Print

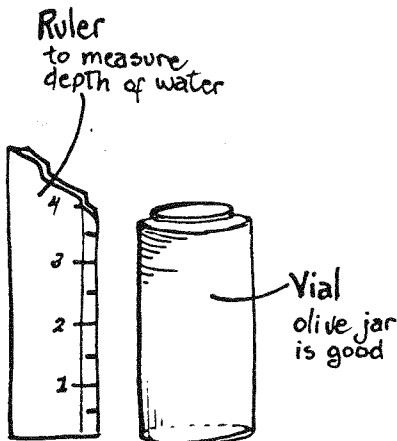
1. Put the mushroom's cap, bottom down, on a sheet of white paper. Cover the cap with a glass bowl and leave it undisturbed for several hours.
2. The tiny spores fall on the paper and stick, forming a beautiful and colourful pattern. The colour of the spores is a clue to the identification of the mushroom.

## Measuring Rain

Make two rain gauges to measure the amount of rain that falls in a storm. Set one on the ground in an open field and the other on the ground inside a woods. After a rainstorm, measure the amount of rain that fell in each. How much rain was kept from reaching the gauge by the shrubs and trees of the forest? Measure the rainfall of several storms, including light showers.

### Rain Gauge:

To make a rain gauge, use a tall slender, straight glass or jar with a flat bottom, like an olive jar. The container must be more than 1-1.5 inches wide to give an accurate measurement of the amount of rain that fell. To measure the rainfall place a ruler along side the jar and take a reading at the water level.



When you use the gauge, be sure to place it out in the open in a well-exposed area, not up against a shed. To prevent the gauge from being blown over, loop rings of clothes hanger wire around the post and collecting jar. You can fasten the wire to the post with heavy staples. The wire loops should be just snug enough so that you can remove the jar easily.

## **Water on Leaves**

Look at a leaf and notice the way it repels water. Some are waxy and the water runs off, barely leaving a trace; others are furry and have little hairs to push the water off. The crystal droplets glisten like diamonds on the silvery leaves.

Gather a bunch of different leaves and spray a little water on each. You will find several different water patterns. Some plants will channel the water to the ground along the leaves that act as funnels or aqueducts. Can you find some that collect water in vase-shaped containers?

## **Building a Nest**

This can be a real challenge for a rainy day. You'll need:

- nest building materials such as mud, sticks, grass, horse hair, bark, wool, etc.
- tweezers or a spring clothespin for each person
- reference books on birds that contain diagrams of their nests or examples of abandoned nests.

Pair off the members and have each pair choose a nest they would like to make. They can use the reference books to determine the size and type of materials they can use. There's only one catch: they are only allowed to use their "beak" (tweezers or spring clothespins operated by one hand) and their feet, just as birds do!

Allow 15-30 minutes to complete the nests and then have a "model homes tour," with each pair telling what bird they were, how and why they built their nest and the materials they used.

Depending on the age of your members and the level of their fine motor skills, you may want to have them just try to build something that hangs together.

# PROJECT COMPLETION

A Certificate of Completion and a Project Summary have been included in this Guide, pages 59 - 60. Your signature on either of these indicates you feel the member has completed the project to the best of his/her ability. Space is provided for you to add some individual comments to offer encouragement to the member. The Project Summary sheet also asks for written feedback from the member and his/her parents/guardians. (The questions on this sheet have been selected from the informal evaluation sentences, listed below.) Select whichever sheet best meets your needs and make copies for the members.

## INFORMAL EVALUATION

Take a few minutes at the last meeting to do an informal evaluation with members. One way to do this is to ask them to complete one/all of the following sentences.

- I joined this club because ...
- I really enjoyed ...
- I didn't enjoy ...
- I had a hard time ...
- My favourite meeting activity was ...
- My least favourite meeting activity was ...
- If I was to take this project again, I would change ...
- My favourite recipe was ...
- My least favourite recipe was ...
- I learned ...
- I've changed ...
- I'm glad ...

## IT WORKED FOR US!

Your experience in leading this club would be helpful to another leader in your area. You are encouraged to make some comments about the project, what resources you discovered locally and the members' feelings about the project and pass this information on to your 4-H Association. The Resource Development Committee of the Ontario 4-H Council is interested in your comments too. Their address is in your Leaders' Guide, page 12.

THANK YOU FOR BEING  
A VOLUNTEER 4-H LEADER!

# PROJECT SUMMARY - OUTDOORS

(complete at the end of the project)

## A. Member Comments:

1. I joined this club because ... \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2. I really enjoyed ... \_\_\_\_\_  
\_\_\_\_\_

I didn't enjoy ... \_\_\_\_\_  
\_\_\_\_\_

3. If I was to take this project again, I would change ... \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

4. I learned ... \_\_\_\_\_  
\_\_\_\_\_

5. I'm glad ... \_\_\_\_\_  
\_\_\_\_\_

**B. Parent/Guardian Comments:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**C. Leader Comments:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

This project has been completed satisfactorily.

Member \_\_\_\_\_ Leader \_\_\_\_\_

Date \_\_\_\_\_ Leader \_\_\_\_\_



## OUR GREAT OUTDOORS

Congratulations on successfully completing  
this 4-H project.

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\_\_\_\_\_  
Date

\_\_\_\_\_  
Club Leader's Signature