

4-H Natural Resources



1

Level

Project
Guide

STEP INTO NATURE

Name _____ County _____

Acknowledgements

Project Coordinator: Chris A. Roegge
Extension Specialist, 4-H Youth Development

Project Design Team: David Shiley
Curtis Sinclair
Duane Friend
Extension Educators, Natural Resources Management

Book Design/Layout: Paula Wheeler
Wheeler Arts, Champaign, IL

Logo Elements: EcoPics™ copyright, Crystal Graphics N.J.

Supporting Graphics: QuickArt® copyright, Wheeler Arts

4-H Natural Resources



Level 1 Project Guide

**STEP
INTO
NATURE**

Table of Contents

Note to the Project Helper	3
Fun with the Natural Resources Project	4
My Project Plans and Highlights	5
Natural Resources Achievements: Unit 1	6

Your Own Backyard

Life Skill: Learning to Learn

What's Wild (find and classify pictures of animals)	8
Getting a Good Start (compare animals by how offspring develop)	10
Beyond the Kitchen Faucet (do a water pollution experiment)	12
Build an Eco-Chamber (build a miniature ecosystem)	14

Fun With Nature

Life Skill: Making Decisions

Those Amazing Leaves (make a leaf print collection)	16
Rockin' With Rocks (compare two types of rocks)	18
The Best Habitat (match animals with their habitat)	20

The World Around Us

Life Skill: Planning and Organizing

Going Wild (plan and build an indoor wildlife habitat)	22
Web of Life (plan and make a food web model)	24
Water Detective (develop and implement a water conservation plan)	26

Let's Talk Nature

Life Skill: Communicating

Living Land (make a presentation about living things in the soil)	28
Holding Tight (do a splash erosion experiment)	30
Bird Restaurant (demonstrate building a bird feeding station)	32

Glossary	34
----------------	----

Note to the Project Helper

Welcome to the 4-H Natural Resources project. As a project helper, you have an important role in guiding, supporting, and encouraging youth.

This project guide is designed to help youth actively explore the world of natural resources. It includes hands-on activities for both indoor and outdoor fun.

Natural Resources Project Guides

The three 4-H Natural Resources project guides are designed for beginning, intermediate and advanced learners. In each lesson, you will find a learning activity that emphasizes a project skill and a life skill. This Level 1 project focuses on four life skills: learning to learn, communicating with others, planning and organizing, and making decisions.

Each project guide includes **Exploring Nature** activities designed to help youth learn by doing. The **Talking It Over** sections help youth process what they have learned as they discuss the experience with you. Keep in mind that most of the questions in this section will not have a right or wrong answer. Your goal is to help youth clarify and expand on their own ideas. **A Step Further** sections provide additional learning activities for youth to explore. Encourage youth to enhance their project experience with these challenging activities. Each project guide also includes an achievement program to recognize youth for their accomplishments.

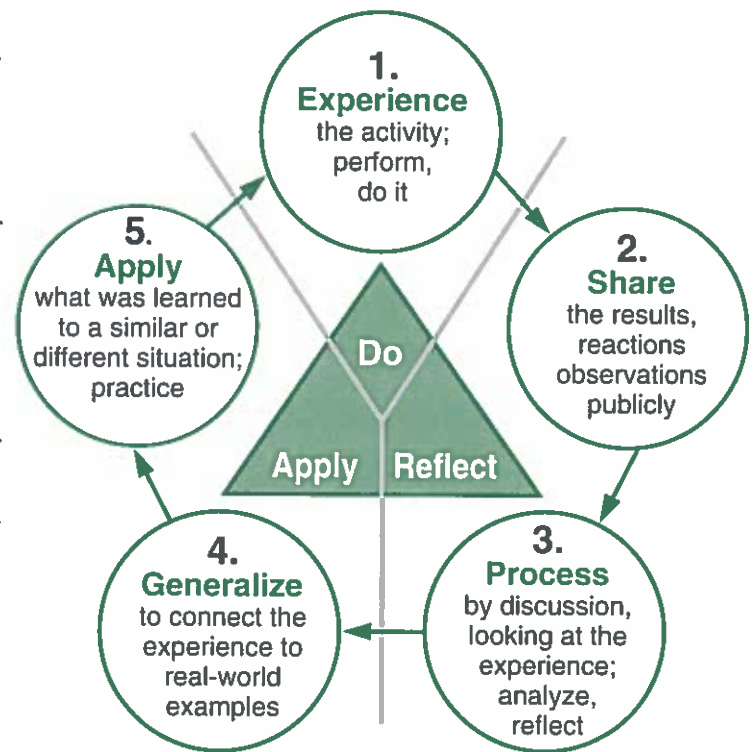
Leader's Guide

The 4-H Natural Resources series also includes a Leader's Guide. This publication provides more specific content information as well as fun learning activities for groups. These group activities are suitable for families, classrooms, 4-H project groups, or other clubs and groups. You will also find information about the experiential learning model and how to use it to promote life skill development.

4-H: Experiential Learning

This learning method — doing an activity, reflecting on the experience, and applying the new knowledge — is called the **Experiential Learning Model**. This model is what makes 4-H youth development education different from other formal education methods. Each lesson in the 4-H Natural Resources series uses experiential learning to help youth get the most out of their learning experiences.

Experiential Learning Model



As you can see from the diagram above, youth start by completing an activity on their own. Then, you meet together to talk about the experience. With your guidance, youth reflect on what they did and how they can apply the learning to other situations. This method may seem different at first, but with your efforts young people will soon become comfortable with the process, and learning will go well beyond Natural Resources. Good luck!

Fun with the Natural Resources Project

Welcome to 4-H Natural Resources. In this Level 1 project, you will explore fun ways to learn about nature both indoors and outdoors. You'll compare different kinds of animals, collect leaves, build things, and make plans for your family. You'll even do some fun experiments that will help you become a natural resources expert. All kinds of exciting opportunities await you in the 4-H natural resources project. Set high goals for yourself and see just how far you can go.

Natural Resources Activity Guide

The activities in this guide will give you new challenges to explore. Work with your project helper to complete each activity. Remember, this guide is not designed to provide you with answers to all of your questions. Learn to find and use resources such as books, videos, Extension Service educators, and professionals such as foresters, biologists, resource conservation educators and others who work in the field of natural resources.

Record your goals and work in this guide. A written record will be useful as you progress through Level 1. It will also show all that you have learned and accomplished in the project.

Project Guidelines

- Do at least four required activities and three "A Step Further" activities each year.
- Complete Level 1 within three years.
- Participate in at least three of the learning experiences listed on page 5 each year.
- Record project goals and accomplishments.
- Practice the life skills emphasized in this unit: learning to learn, communicating, planning and organizing, and making decisions.

Your Project Helper

Your project helper will be a great resource for you. Choose someone who will support your efforts to complete the natural resources achievement program. Your helper will meet with you to set goals, suggest resources to use, and give feedback as you complete each activity. Write the name and phone number of your helper below.

Project Helper: _____

Phone: _____

My Project Plans and Highlights

Natural Resources Project Goals

Name _____

List goals that you want to achieve in the Level 1 Natural Resources project:

Year _____

Year _____

Year _____

Natural Resources Highlights

Date and list important things you do and learn in this project.

Major Learning Experiences

Date any of these things that you do.

Year	Year	Year	Activity
			Give a public presentation
			Attend a natural resources workshop
			Participate in a community environment project
			Participate in a natural resources tour
			Attend a natural resources project meeting
			Exhibit at a fair
			Your own activity

Natural Resources Achievements: Unit 1

Directions:

1. Do at least four required activities and three "A Step Further" activities each year.
2. Finish at least 20 activities in three years to complete this level.
3. Date each activity when you complete it and have your project helper initial it.

Required: Complete at least three of the following activities.

Helper	Date	Activity
		What's Wild
		Getting a Good Start
		Building an Eco Chamber
		Beyond the Kitchen Faucet

Required: Complete at least two of the following activities.

Helper	Date	Activity
		Those Amazing Leaves
		The Best Habitat
		Rockin' with Rocks

Options: Complete any of the "A Step Further" activities listed below, or write your own challenge.

		A Step Further page 9 # 1
		A Step Further page 9 # 2
		A Step Further page 13 # 1
		A Step Further page 13 # 2
		A Step Further page 15 # 1
		A Step Further page 15 # 2
		A Step Further page 15 # 3
		Write your own step further idea here:

Options: Complete any of the "A Step Further" activities listed below, or write your own challenge.

		A Step Further page 17 # 1
		A Step Further page 17 # 2
		A Step Further page 17 # 3
		A Step Further page 19 # 1
		A Step Further page 21 # 1
		A Step Further page 21 # 2
		Write your own step further idea here:

Required: Complete at least two of the following activities.

Helper	Date	Activity
		Going Wild
		Water Detective
		Web of Life

Required: Complete at least two of the following activities.

Helper	Date	Activity
		Living Land
		Holding Tight
		Bird Restaurant

Options: Complete any of the "A Step Further" activities listed below, or write your own challenge.

		A Step Further page 23 # 1
		A Step Further page 23 # 2
		A Step Further page 25 # 1
		A Step Further page 27 # 1
		A Step Further page 27 # 2
		Write your own step further idea here:

Options: Complete any of the "A Step Further" activities listed below, or write your own challenge.

		A Step Further page 29 # 1
		A Step Further page 29 # 2
		A Step Further page 29 # 3
		A Step Further page 31 # 1
		A Step Further page 31 # 2
		A Step Further page 33 # 1
		A Step Further page 33 # 2
		Write your own step further idea here:

I certify that _____ has completed the Level 1 Natural Resources project.

Project Helper's Signature _____ Date _____



Your Own Backyard

Learning can be exciting and fun, especially in your own backyard. There are lots of different ways to learn. Reading, listening, watching, and doing are all ways to learn new things.

In this chapter, you will learn lots of new things in lots of new ways. You can use these new ways of learning in school, at home, and with your friends.

Project Skill:
Classifying animals

Life Skill:
Learning to learn

Activity:
Find and classify pictures of animals



What's Wild?

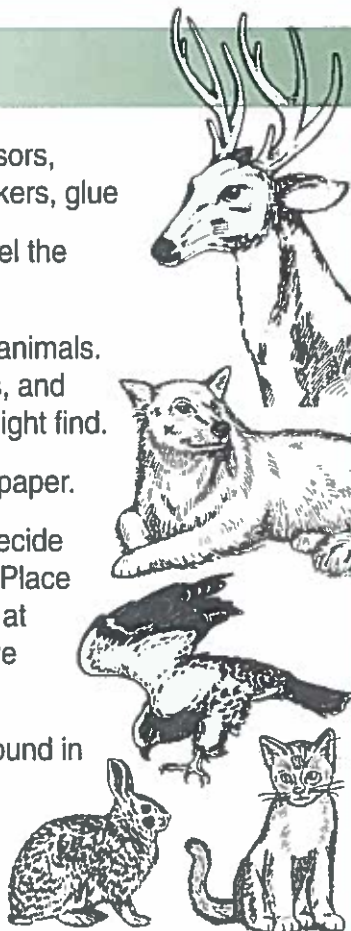
Some animals live with us as pets. Some are raised by farmers for their wool, meat, milk or eggs. These animals are **domestic** animals.

Other animals live free. They take care of their own food, shelter and other needs. These animals stay away from people. They are wild animals, or **wildlife**. In this activity, you will learn how to classify animals as either domestic animals or wildlife.

Exploring Nature

Materials Needed: old magazines, scissors, paper, two envelopes, posterboard, markers, glue

1. Label one envelope domestic and label the other envelope wildlife.
2. Look in magazines to find pictures of animals. Dogs, cats, worms, ants, birds, chickens, and deer are just some of the animals you might find.
3. Cut out the pictures or trace them on paper.
4. As each picture is cut out or drawn, decide whether that animal is wild or domestic. Place the picture in the correct envelope. Find at least five pictures of wild animals and five pictures of domestic animals.
5. Write the names of the animals you found in the chart.
6. Use your pictures to make a poster showing domestic and wild animals.



Domestic Animals

Wildlife

Talking It Over

Share What You Learn

Tell what you did and what you found.

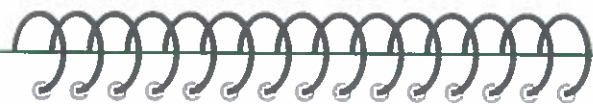
How did you decide where to place each animal on your chart?

Were there any animals that were hard to place in one of the groups? Why?

Use What You Learn

Why is comparing and sorting a good way to learn about some things?

In what other ways could you use your comparison skills to learn new things?



Field Notes

Domestic animals have been tamed and bred for special purposes. They depend on humans for their food, shelter, and water. They might not survive without the care given by their owners. Domestic animals include such pets as cats, dogs, and horses, as well as such farm animals as cows, chickens, and sheep.

Wild animals do not depend on humans for their food, shelter and water. Some wildlife, such as snakes, squirrels, and deer, live in forests, meadows, or ponds. Other wildlife, such as birds, insects, and toads are found in backyards and city parks. Some wildlife may even live in city buildings or in your house. Have you ever found ants or a mouse in your home? Why aren't these animals domestic if they live in our buildings?

A Step Further

1. Search your home or classroom for signs of wildlife. You might find live or dead insects, spider webs, or roach droppings. In a notebook, describe or draw each sign of wildlife and note where it was found. Make another search outdoors. Compare findings.
2. Call an animal control department to find out what wild animals have caused problems in your community. Also find out how these wildlife problems are handled.

© 1983, 1985, 1992 Council for Environmental Education. Adapted with permission from *Project WILD K-12 Activity Guide*. The complete Activity Guide can be obtained by attending a Project WILD workshop. For more information, contact the Illinois Project WILD Office at (217) 534-4126.