

1977-78

4-H Natural Science Projects and Materials

DOCUMENT
COLLECTION
OREGON
COLLECTION

Outdoorsman
Bee
Entomology

Forestry
Geology
Marine Science
Archery

Fishing
Gun Safety
Wild Animals and Birds

The Oregon State University Extension Service through county Extension offices provide 4-H publications and certain other 4-H materials to enrolled 4-H leaders and members. A few items must be purchased.

4-H materials are not generally available to the public except that teachers and leaders of other youth groups may request single copies of most items. A few items are available for sale to the public.

This form is intended to provide a brief overview of the natural science projects and to assist you in determining the 4-H literature your group will need this year. Please do not order materials that you or your 4-H'ers already have or will not use this year. While literature is provided at no charge (except for special items) to the leader or member, publications are a significant expense and discretion is desirable. In many instances a "club library" can be used rather than everyone needing copies of the materials.

Each Extension office will have its own methods and procedures for handling literature. We suggest you note in the margin the number of copies needed of the various items, then submit this form together with enrollment materials to the office secretary. When your order is filled this form will be returned with the materials.

Members' manuals and some record sheets are provided upon enrollment. Leaders also receive appropriate leaders' guides. Supplemental publications should be ordered as needed. Adult subject matter bulletins are also available from the county Extension office.

Teaching Aids

Through contributions to the Oregon 4-H Club Foundation a statewide audio-visual library has been established to assist 4-H leaders in their educational efforts.

A catalog of available materials (both state and county) together with procedures for ordering is available at the county Extension office.

Natural Science

Natural Science members should use the My 4-H Project Record, 038R for those projects that do not have record forms.

Natural Science projects are those relating to the study of the earth and the animals and plants that (with energy from the sun) are our natural resources. They relate to the ecology and conservation of our environment.

Natural Science or "Outdoor" clubs may include members enrolled in a variety of these projects. If the clubs are large, assistant or junior leaders will be needed to assist in the various areas.

The OSU Extension Service in cooperation with the Oregon Department of Fish and Wildlife and the National Wildlife Federation offers a Backyard Wildlife Program. Members and their families plan and plant their yards to attract and provide homes for wildlife. Plans include window boxes, feeders and bird houses for apartment dwellers and major planting with optional ponds for suburb and rural areas; can be a club or individual activity. Leaders are encouraged to order a kit of materials.

General natural science publications, available as needed:

-3681 **Backyard Wildlife Program Kit**
-3011 **4-H Outdoorsman—outdoor manual (PNW 77)**
-3001 **Pocket Guide for 4-H Hikes—one per member**
-4002 **4-H Mounting Card—for pressed plants**
-3004L *Guidelines for 4-H Nature Hikes—Leaders' Guide*
-2101L *Know Your Crops & Weeds—Leaders' Guide*

Members' project manuals are listed in boldface type; leaders' guides in italics.

Members' Materials

-032 **My 4-H Records Folder**—all new 4-H members may have one, if needed, for their 4-H materials.
-039R **My 4-H Notes**—this ruled sheet is for members to keep a narrative record of their 4-H work for the year. Optional.
-033R **My Permanent 4-H Club Record**—recommended for second-year members who want to keep a combined record of their 4-H activities and accomplishments. It will be needed when applying for certain trips, scholarships, and other awards.
- **4-H Song Sheet**—one for each member if desired.
- **Oregon 4-H Sings**—a pocket-sized song book with words and music of 4-H and other favorite songs—25¢ per copy.
-0310 **4-H Show and Tell**—an introduction to presentations for younger members.
-0311 **You Present: Demonstrations, Illustrated Talks, Speeches**—for older members.



OREGON STATE UNIVERSITY
**EXTENSION
SERVICE**

Extension Service, Oregon State University, Corvallis, Henry A. Wadsworth, director. This publication was produced and distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914. Extension work is a cooperative program of Oregon State University, the U. S. Department of Agriculture, and Oregon counties. Extension invites participation in its programs and offers them equally to all people, without discrimination.

Leaders' Materials

-0215L *Let's Organize a 4-H Club*
- *Leaders' Handbook*—a nine section reference dealing with what is 4-H, 4-H leadership, how clubs function, working with boys and girls, activities, recognitions and awards, etc.
-027L *Tours—A Teaching Tool: Leaders' Guide*
-028L *4-H Opens the Door for the Mentally Retarded*
-029L *4-H Advancement Program Leaders' Guide*
-0210L *4-H Reaches Out to Youth with Special Needs*
-0211L *4-H Record Keeping, A Guide for Leaders*
-0212L *Youth and Accomplishments: A Guide for Leaders*
-0225L *Judging Teaches Decision Making, Leaders' Guide*
-0226L *4-H Demonstrations and Illustrated Talks, Leaders' Guide*
- *Safety Handbook for Leaders*
- *Backyard Wildlife Program Kit*
- Black & Gold, 3-ring, 4-H Notebook (purchase item)

Parent Materials

-0317 You Have Become a 4-H Parent. A one sheet discussion of roles a 4-H parent can perform.

Officers' Materials

-035 Manners for 4-H Meetings—(2) for president and vice-president
-036 4-H Secretaries' Book
-037 Headlining 4-H—for news reporter.

4-H Member Recognition Items

The First National Bank of Oregon, in cooperation with the Oregon 4-H Club Foundation provides the following recognition items.

Please check with your members and do not order items they already have or that have been ordered for them through another club.

- First year member—4-H member's button.
- Second year member—Chevron patch. Green and white washable fabric, circular, 1½ inches in diameter. To be sewn on cap, jacket, shirt or blouse.
- Third year member—Oregon 4-H pin with safety catch.

Food Fun (Nutritional Leaflets)

All 4-H clubs are encouraged to include at least one lesson in nutrition. Select one or more of the following for a fun way to teach nutrition. Order one leaflet for each member, a leaders' guide will be included. If you want to teach by games and puzzles, order the "Bag of Tricks," too.

-9351 Super Snacks
-9352 Mighty Milk
-9353 Vitamin C for You and Me
-9354 Meet the Meat Group
-9355 Bring in Bread & Cereals
-9356 Eat Your Way to Vitamin A
-9357 Milky Ways
-9358 Meat & More
-9359 Amazing Ways With Grains
-9360 Get It All Together
-9361L *Bag of Tricks (Nutrition games)*

Community Pride Activity

4-H members are encouraged to study, plan, and work to improve their communities. Improvements may include beautification, conservation, safety, health, recreation, services, communication, and government. A leaders' guide and additional information are available from Extension offices.

-0214L *Community Pride Leaders' Guide*

Junior Leadership

The Junior Leadership project is designed to help older boys and girls develop their leadership abilities. Junior leaders share responsibilities with an adult leader in leading a 4-H club.

Junior leaders provide valuable leadership for the club, but the major objective of the project is to provide leadership experiences for the junior leader.

Junior leaders must be in the 7th grade or higher, have had one or more years of satisfactory 4-H or equivalent group experience, and have the approval of the adult leader.

-651 Oregon Junior Leadership
-651R Junior Leadership Record
-651L *Junior Leadership Leaders' Guide*

4-H Outdoorsman

Boys and girls go on hikes and field trips to fields, forests, ponds, streams, seashores, mountains, roadsides and backyards to observe and learn how plants and animals live. The project combines biology, entomology, forestry, geology, ecology—the study of animals and plants in their natural habitat. It is recommended for 9- to 12-year old boys and girls who wish to start with a general outdoor project. After one or two years, they may wish to enroll in a more specific project, or they may continue as 4-H Outdoorsmen.

4-H Outdoorsmen:

- Enjoy—hikes, camping, and the out-of-doors.
- Learn—about animals, plants, and the earth.
- Share—nature and its beauty.
- Improve—knowledge, health, and physical fitness.

-300 4-II Outdoorsman Project—project outline
-3011 4-H Outdoorsman—outdoor manual (PNW 77)
-301L *4-H Outdoorsman Leaders' Guide*

Bee

The 4-H Bee project offers two options: 4-H members may learn about bees by owning and caring for a hive of bees or by reading about bees and observing their habits. Boys and girls who are very sensitive to bee stings should not attempt to care for a hive. Both options include basic requirements and a bee advancement program. 4-H members learn about bees and how to care for them, the social life of bees, the honey-producing plants in their area, how bees pollinate crops and increase the yield of many fruit and seed crops, and how honey is produced and marketed.

-321 Oregon 4-H Beekeeping Project
-PNW 79 Beekeeping
-321R Beekeeping Record

Entomology

The 4-H Entomology project provides opportunities for members to learn about insects and their value, to go on field trips, to collect and identify insects, and to learn how to control harmful insects.

-3220 Oregon 4-H Entomology Project
-3221 4-H Entomology Project (Manual)
-3220R 4-H Entomology Record
-3221L *Handbook of the Insect World, Leaders Only*
Mounting pins size 1 or 3 (packs of 100 for 5 members)

Forestry

Forestry offers boys and girls an opportunity to get better acquainted with Oregon's number one industry and natural resource. Members take hikes in the woods; learn how trees grow and how to identify them; and collect, press and mount specimens of forest plants. They learn about animals, birds, and insects that live in the woods and the many uses of our forests. Activities include: hikes, field trips, and forestry camps.

-331 4-H Forestry Project (PNW 92)
-331L *Forestry Leaders' Guide*
-331LS *Forest Leaders' Guide, Supplement*

Supplemental materials—order only as needed.

-4002 4-H Mounting Cards
-EB 697 Trees to Know in Oregon—75¢ (free to leaders)
-EB 785 Ferns to Know in Oregon
Range Plants Leaflets (up to six single copies free; set of 77, \$2.50)
-EC 566 Oregon Tree Quiz
-EC 553 Western Oregon Shrub Quiz, or
-EC 615 Eastern Oregon Shrub Quiz
-EC 567 Oregon Tree Quiz Key
-EC 554 Western Oregon Shrub Quiz Key
-EC 616 Eastern Oregon Shrub Quiz Key

4-H Tree Farmer

This project is for older boys and girls who will manage an area of forest land, a woodlot, Christmas tree planting, windbreak, or a forestry nursery. An excellent manual and a special record are provided.

-I 5 The 4-H Tree Farmer
-I 6 4-H Tree Farmer Record

Geology

Geology is the science of the earth. It includes the study of rocks, minerals, land forms, and the fossils of ancient animals and plants. Much of the story of the earth is recorded in its rocks.

4-H geologists go on hikes and field trips to study land forms and the rocks, minerals, and gem stones they find. They learn about animals, plants, soil, and weather and how they relate to each other.

The project has an advancement program that stimulates interest in learning about geology and natural science. 4-H geologists collect and identify rocks and minerals, prepare exhibits and displays, and participate in rock and mineral identification contests.

-340 4-H Geology—Leaders' and Members'
 -3401L *Description of Some Oregon Rocks and Minerals, for leaders*
 -340R Geology Record
- Members may wish to purchase one or more paperback books on geology.

Marine Science

This project was prepared by Marine Science Center Staff and is a cooperative program of the Oregon State University Sea Grant and Extension Service.

Marine science includes the study of the ocean, its shores and bays, and the plant and animal life found in and around it. One or more field trips to the coast are essential.

-3501 4-H Marine Science—Ocean Adventures
-EC 721 Enjoy the Beaches in Safety
- *Synopsis of Regulations for Taking Shellfish, etc.*
-3501L *4-H Marine Science Leaders' Guide—Ocean Adventure*
-EB 5 *A Guide to Oregon's Rocky Intertidal Areas**
-3502L *Advanced Marine Science Leaders' Guide*
-SG 5 *Land Slides of Oregon: North Coast*
-SG 8 *Continental Shelf Sediments Off Oregon*

Supplemental Materials—order only as needed.

-FS 21 Home Canning of Tuna and Salmon
-SG 7 Home Freezing of Seafood
-FS 152 Preparing Cluster Egg Baits
-FS 170 A Guide to Buying Oregon Fish and Shellfish
-FS 183 Cutting and Freezing Salmon and Steelhead
-3632 How to Catch Fish in Salt Water

Archery

4-H archers learn how to select, care for, and use a bow and arrows; how to shoot safely and accurately; and about wildlife and the out-of-doors.

-361 Oregon 4-H Archery
-3612 NRA Bow Hunting Handbook
-361L *4-H Archery Leaders' Guide*
-3611 *Oregon 4-H Archery Mail-In Tournament, leaders only*
-366L *Hunter Safety Handbook—Instructor's Edition, leaders only*

4-H Fisherman

"Quit wishing—go fishing." 4-H Fishermen learn how fish live and grow and how to catch them. This project has many options that will provide a variety of experiences over a period of several years. Members learn about underwater insects that fish eat and about conditions necessary for reproduction and growth.

-520 The 4-H Fisherman
-520L *The 4-H Fisherman Leaders' Guide*

Supplemental materials—order only as needed.

-3631 How to Catch Fish in Fresh Water
-3632 How to Catch Fish in Salt Water
-FS 56 Catching and Cooking Crayfish

-FS 140 Care and Culture of Earthworms
-FS 152 Preparing Cluster Egg Baits From Salmon and Steelhead Roe
-FS 183 Cutting and Freezing Salmon and Steelhead at Home
-EB 790 Game Foods

Gun Safety

For boys and girls 11 and older. Provides opportunity to develop safe habits with firearms, improve shooting skill, and learn about wildlife conservation. A five-step gun safety advancement program is provided. Clubs arrange with the Oregon Department of Fish and Wildlife to get materials for the Hunter Safety Course.

-366 **4-H Gun Safety**
-366L *Hunter Safety Handbook—Instructor's Edition, leaders only*

Wild Animals and Birds

Members go on hikes to observe and learn about wild animals and birds and how they live. They make friends with animals and birds and learn their names and how to recognize them. They practice good outdoor manners and sportsmanship. Many interesting books and stories

are available. Members learn about the relationship between the woods, water, soil, and wildlife. **Only one division** is available; it can be continued for several years by doing different electives and improving outdoor skills.

-368 **Wild Birds and Animals**

Other wildlife materials:

-EB 804 Mole and Gopher Control

* Leaders may order single copies from the Oregon Department of Fish & Wildlife, Box 3503, Portland 97208.

Group Determined Project

A group determined project is one that allows an adult or teen volunteer and group of young people to select, plan, develop and evaluate their own project. Such a project may:

- take a different direction or expand upon an existing project;
- be one not currently available through the Oregon State University Extension Service.

-0227L *We Decide, Leaders' Guide* (A guide for development of a group determined project.)