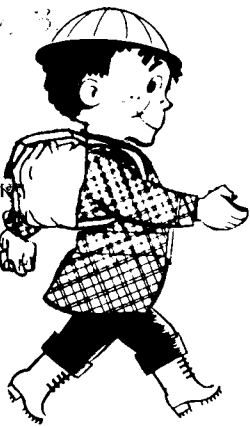


AUG 1 1962

Oregon

4-H Forestry Project and Advancement Program

DOCUMENT
COLLECTION
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COLLECTION

4-H Club Series I-4

May 1962

Name _____

Address _____

School or community _____

County _____

Club leader _____

Name of club _____

Cooperative Extension Service

Oregon State University, Corvallis



Oregon 4-H Forestry Project

What do you do in a 4-H Forestry project?

Each year you must do the following:

1. Take at least three hikes into the woods to study trees, other forest plants, and wildlife. Find and identify at least 10 forest items on each hike. (Use pocket guide.)
2. Learn to identify at least 10 new trees or forest plants.
3. Observe 5 or more different kinds of native birds, animals, fish, or reptiles. Be able to describe them. Tell what they eat, where they nest or have their young, how they spend the winter, and how they fit into the life of the forest.
4. Learn at least 10 new "woods words." Know their meaning and how to spell them.
5. Participate in your club's activities.
 - a. Attend club meetings regularly and be on time. You may be dropped from the club if you have two consecutive or a total of three unexcused absences. Be sure to call your leader and get excused if you cannot attend.
 - b. Individual members (those not in a 4-H club) must complete a step in the advancement program each year until they have completed three steps (or equivalent).
6. Advance as far as you can in the Forestry Advancement program.
7. Write a story of your experiences as a 4-H forestry club member on "My 4-H Story" form.
8. Fill out and return a 4-H completion form or help your leader fill out the club completion form.



You will continue to use the 4-H Forester Manual, Club Series I-1, with this revised forestry project. These requirements replace those listed in the manual.

4-H Forestry Advancement Program

The 4-H Forestry Advancement program is an important part of your forestry project. It will become a part of your 4-H records and should be included when records are called for.

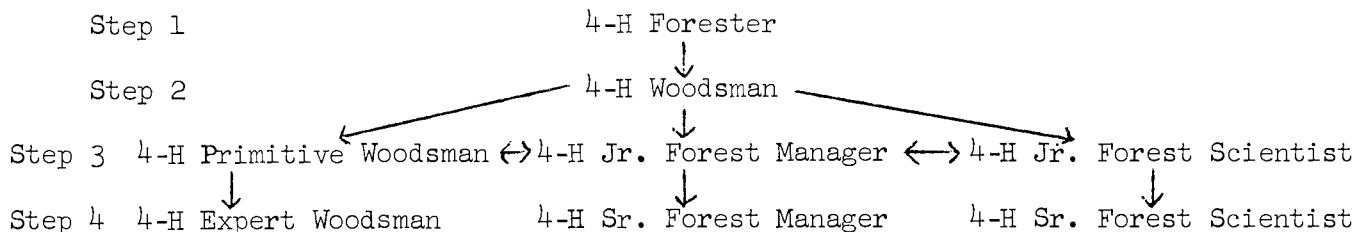
The 4-H Forestry Advancement program

- ... makes your project even more interesting
- ... helps you learn more about forestry
- ... provides a choice of activities and interests to you
- ... gives you credit for extra work done
- ... allows you to advance as rapidly as your interest and ability will permit
- ... is a voluntary activity to challenge your interest in forestry

The advancement program is divided into several steps, each with a greater degree of difficulty. As you complete each job, have it initialed by your 4-H leader or parent. When you have completed all of the requirements, your leader will make arrangements for you to qualify for the advancement certificate.

You can do optional jobs for any of the steps in the advancement program. However, you will not qualify for any certificate unless you have passed all of the previous steps. Some steps have identical jobs. In this case choose different options or do the same job over and try to do it better.

The steps in the 4-H Forestry Advancement program are:



Each member must complete the 4-H Forester and 4-H Woodsman before going into Step 3. There, you choose the field in which you are most interested. You may go from one phase of Step 3 to another if you wish. For example, if you have completed the Primitive Woodsman, you may take either the Expert Woodsman or the Junior Forest Manager or 4-H Junior Forest Scientist as your next step. You may work on two or more steps at the same time.

You will need help beyond your project book to complete the advanced steps. You will find this information in books, pamphlets, bulletins, magazines, newspapers, and many other sources. This is part of your responsibility in becoming more familiar with your special interest in the field of forestry. Your 4-H Club leader, county Extension agent, and professional foresters can be helpful to you when working on your advancement.

Individual members note: Many of the requirements in the 4-H Forestry Advancement program refer to "your 4-H Club." If it is not possible to be in a club, you may substitute "some other group or your family" for the words "your club." The other group could be your class in school, Sunday school class, or another club.



How to Become a 4-H Forester

	<u>Date</u>	<u>Leader's initials</u>
1. Make a plant press and collect, press, and mount foliage and seed or flowers of 10 different forest plants.	_____	_____
2. Complete one of the following:		
a. Give a report to your club on one kind of tree. Tell how to identify the tree, where it grows, its uses, and any other interesting things you have learned about it.	_____	_____
b. Show and tell your club how to do or make something related to forestry.	_____	_____
c. Take a hike into the woods with one or two of your club mates. Report to your club where you went and what you saw.	_____	_____
d. Tell a story about the out-of-doors to your club or some other group.	_____	_____
3. Complete two of the following:		
a. Visit a forest lookout or guard station.	_____	_____
b. Visit a district forestry office.	_____	_____
c. Visit a fish hatchery.	_____	_____
d. Visit a hydroelectric power plant.	_____	_____
e. Attend a lecture or motion picture having to do with some phase of forestry.	_____	_____
f. Make or help make a 4-H window display on forest fire prevention or some other phase of forestry.	_____	_____
4. Complete one of the following:		
a. Have a club meeting at your house.	_____	_____
b. Lead the flag pledges at a meeting.	_____	_____
c. Serve as an active officer of your club.	_____	_____

- | | <u>Date</u> | <u>Leader's initials</u> |
|---|-------------|--------------------------|
| d. Invite a group of your friends to your home and tell them about your forestry project. | _____ | _____ |
| e. Take a group of your friends on a hike to a place you have enjoyed on a previous hike. | _____ | _____ |
| 5. Complete one of the following: | | |
| a. Plant 10 forest trees. | _____ | _____ |
| b. Make a display of 5 different kinds of leaf prints. | _____ | _____ |
| c. Make and post a fire prevention sign. | _____ | _____ |
| d. Join the Oregon Green Guard. | _____ | _____ |
| e. Make a winter bouquet of forest materials. | _____ | _____ |
| f. Make a centerpiece of forest materials. | _____ | _____ |
| 6. Complete one of the following: | | |
| a. Build a safe campfire and put it out correctly. | _____ | _____ |
| b. Learn to tie a square knot and three other knots useful to a woodsman. | _____ | _____ |
| 7. Read the story of one great American scout or woodsman and write or tell your parents or club the methods he used to live in the woods. The following are suggestions: Lewis and Clark, David Douglas, Kit Carson, Daniel Boone, Jim Bridger, Jedediah Smith, Peter Skene Ogden, John Muir, Chief Joseph, or Indian tribes of this region. | _____ | _____ |

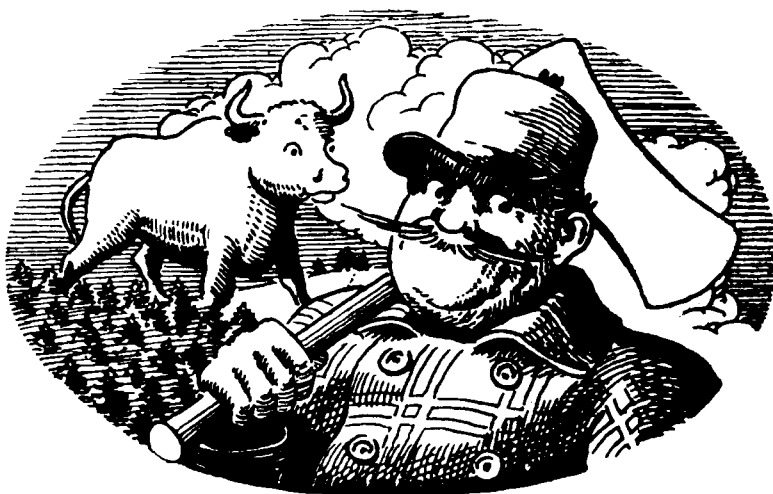


8. Write or tell the meaning of the following plant terms:

tree	shrub	parasite
moss	species	coniferous
lichen	deciduous	multiple use

How to Become a 4-H Woodsman

(You must have completed the 4-H Forester)



- | | <u>Date</u> | <u>Leader's initials</u> |
|---|-------------|--------------------------|
| 1. Camp out overnight with your 4-H Club or your family. Help plan the camping trip, select the campsite, set up camp, prepare a meal, and help clean up the camping area before you leave. | _____ | _____ |
| 2. Cook and eat at least one meal including raw meat, fish, or poultry, a raw vegetable, and some type of bread or cereal. Cook meal over an open fire. | _____ | _____ |
| 3. Show and tell (demonstrate) your club or some other group how to do something related to forestry. | _____ | _____ |
| 4. Be prepared to demonstrate first aid for: burns, cuts, object in eye, fracture, insect bites, poison oak, heart attack or drowning, shock, serious bleeding, and transportation of an injured person.
(If time is short your leader may ask you to show only 2 or 3, but you should know them all.) | _____ | _____ |
| 5. Complete one of the following: | | |
| a. Lead your club in a game. | _____ | _____ |
| b. Lead your club in a song. | _____ | _____ |
| c. Plan a picnic or camping trip. | _____ | _____ |
| d. Observe in the forest 3 different kinds of forest mammals and report at a club meeting how they live. | _____ | _____ |
| 6. Complete one of the following: | | |
| a. Invite a fish and game supervisor or experienced sportsman to discuss fish and game laws with your club. | _____ | _____ |
| b. Visit a forest fire-fighting unit or invite a fire warden to demonstrate fire fighting equipment, building of fire lines, etc. at one of your club meetings. | _____ | _____ |

	<u>Date</u>	<u>Leader's initials</u>
c. Visit a certified tree farm or some forest industry.	_____	_____
7. Tell or write about the proper kinds of clothing to wear in the woods for different kinds of weather.	_____	_____
8. Complete one of the following:		
a. Label 5 or more trees and/or shrubs in a park or picnic area.	_____	_____
b. Participate in a tree identification contest.	_____	_____
c. Establish a forest-plant garden of 5 or more forest plants.	_____	_____
9. Complete one of the following:		
a. Release 10 coniferous seedling trees from brush.	_____	_____
b. Prune 10 forest trees to a height of 10 or more feet.	_____	_____
c. Prune and scar 10 small coniferous trees so the foliage will "brush up" to form better Christmas trees.	_____	_____
d. Plant 25 forest trees.	_____	_____
10. Show how to sharpen, care for, and use a knife correctly.	_____	_____

How to Become a 4-H Primitive Woodsman

(You must have completed the 4-H Woodsman)



	<u>Date</u>	<u>Leader's initials</u>
1. Select and prepare all equipment and food necessary for an overnight campout. This is to be used in completing requirements 2 and 3.	_____	_____
2. Camp out overnight at a campsite at least a mile from where you are required to leave your car. Transportation by foot only.	_____	_____
3. Cook at least two meals over an open campfire.	_____	_____
4. Make a compact lost-aid kit.	_____	_____
5. Build a safe campfire from materials available at the campsite. You may use matches but no paper allowed.	_____	_____
6. Complete one of the following:		
a. Make a ground bed and sleep on it one night.	_____	_____
b. Find, prepare, and eat three different kinds of edible forest foods, not to include more than one type of berry. Include some that are available during the winter. (Do not include mushrooms.)	_____	_____
c. Build a latrine for a camping ground.	_____	_____
7. Learn the eight principal points of the compass. Lay out north-south lines using (a) the sun, (b) the stars, (c) a compass.	_____	_____
8. Complete one of the following:		
a. Make a sketch by which someone not familiar with the area could find your campsite, picnic area, fishing or swimming hole, or some other interesting outdoor spot. Show directions, roads, trails, creeks, trees, and other landmarks using standard map symbols.	_____	_____

Leader's
initials

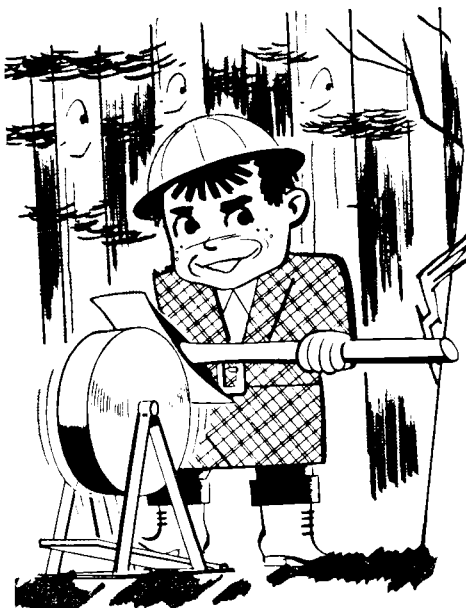
Date

- b. Using a topographic map, show and explain contour lines and major symbols found on the map.

9. Demonstrate how to sharpen, carry, and use an axe correctly.

10. Complete one of the following:

- a. Make and mount a wood-duck nesting box or a bird house.
- b. Make an article of outdoor camping equipment such as a packboard, first aid kit, sheath for an axe or knife, reflector oven, dried food sack, trench candle, tent.



11. Demonstrate how to build three or more of the following types of campfires:

- ___ Teepee or wigwam fire
- ___ Indian, star, or lazy man's fire
- ___ Hunter-trapper fire
- ___ Log cabin or criss-cross fire
- ___ Fire-in-a-hole
- ___ Trench fire
- ___ Automatic stew fire
- ___ Reflector fire
- ___ Altar fire



12. Know how to tie five or more knots useful to an outdoorsman.

How to Become a 4-H Expert Woodsman

(You must have completed the 4-H Primitive Woodsman or equivalent experience)



	<u>Date</u>	<u>Leader's initials</u>
1. Under guidance of an adult leader, make a three-day pack trip on foot, camping out each night and living on only the items you carry in your pack or native materials you can find in the woods.	_____	_____
2. Complete one of the following:		
a. Take a "beeline" compass hike of at least one mile.	_____	_____
b. Take a pacing and compass problem of at least one mile.	_____	_____
c. Plot your route from a map and follow it by use of landmarks and compass. Do not follow a regular or blazed trail.	_____	_____
3. Tell or write what you should do if lost in the woods and complete one of the following:		
a. Find, prepare, and eat three different kinds of forest foods other than berries. Include at least one that is available during the winter. (Do not include mushrooms.)	_____	_____
b. Plan and take an overnight hike including at least one meal. Use only bedroll or sleeping bag, ground cloth, knife, matches, cup and flour, and materials in your lost-aid kit, plus available material found on the trip.	_____	_____
c. Read the story of one great American scout or woodsman and attempt an overnight using only the methods he used to survive.	_____	_____
d. Construct a simple snare or trap for capturing small animals.	_____	_____



- | | <u>Date</u> | <u>Leader's initials</u> |
|---|-------------|--------------------------|
| 4. Tie seven knots useful to a woodsman (square knot, timber hitch, bowline, clove hitch, two half hitches, sheepshank, sheet bend, girth hitch, slip knot, snubbing hitch, catspaw hitch, taut line hitch, etc.) | _____ | _____ |
| 5. Working with one or two of your clubmates, make a stretcher from clothing and forest materials for carrying an injured person. | _____ | _____ |
| 6. Do one of the following: | | |
| a. Waterproof a pair of leather boots and tell how to care for them. | _____ | _____ |
| b. List nine essentials for a woodsman on a hike: | | |
| (1 (4 (7 | | |
| (2 (5 (8 | | |
| (3 (6 (9 | _____ | _____ |
| c. Demonstrate lashing poles with two of the following: Square lash, shear lashing, diagonal lashing, tripod lashing, round lashing, and continuous lash. | _____ | _____ |
| 7. Complete one of the following: | | |
| a. Present a demonstration relating to woodsmanship or camping to some group other than your own 4-H Club. | _____ | _____ |
| b. Tell a story about the out-of-doors to your club or some other group. | _____ | _____ |
| c. Help plan and conduct a Sunday service in the woods. | _____ | _____ |
| d. Help plan and supervise games for a camp. | _____ | _____ |
| 8. Locate the North Star from two of the following constellations: | | |
| a. Cassiopeia (chair) | | |
| b. Cygnus (swan) | | |
| c. Ursa minor (little dipper) | | |
| d. Ursa major (big dipper) | | |
| e. Draco (dragon) | _____ | _____ |
| 9. Review the first aid learned in the 4-H Woodsman. | _____ | _____ |

How to Become a 4-H Junior Forest Manager

(You must have completed the 4-H Woodsman)

Date

Leader's
initials

1. Collect and mount or preserve 6 different kinds of harmful forest insects, fungi, or mistletoe, and tell the damage they do. Tell how they fit into the life of the forest.



2. Do two of the following:

- a. Plant 50 or more forest trees.
- b. Release 25 or more coniferous seedlings from brush species or over-topping broadleaf trees.
- c. Scarify ground so that seed falling naturally can reach mineral soil and grow.

- d. Transplant 5 native trees from an undesirable to a desirable location.

- e. Plant a windbreak for your farm.

3. Make a cruiser's (Biltmore) stick.

4. Scale 5 logs and get board-foot volume.

5. Give a demonstration related to forest management.

6. Visit two or more of the following with guidance from a person who knows the operation.

Furniture plant

Fibreboard plant

Greenery plant

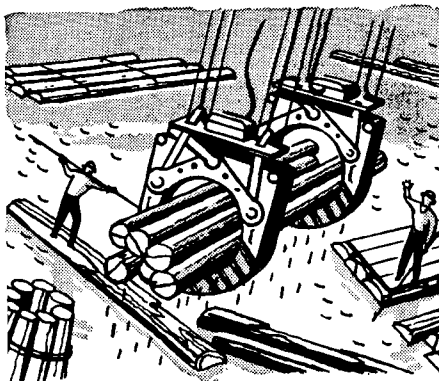
Logging operation

Sawmill

Lumber yard

Pulp mill

Plywood plant



	<u>Date</u>	<u>Leader's initials</u>
Certified tree farm	_____	_____
Forest nursery	_____	_____
Forest management demonstration area	_____	_____
Forest research station	_____	_____
Christmas tree farm	_____	_____
Forest lookout	_____	_____
District office of public forestry agency	_____	_____
Any other operation important to forest management	_____	_____
	(Name)	

7. Do one of the following:

- a. Prune 10 crop-trees in a young coniferous forest. _____
- b. Prune, shape, and otherwise improve a stand of Christmas trees. _____
- c. Harvest or help in harvesting a forest product such as fuelwood, posts, poles, sawlogs, seed cones, Christmas trees, cascara bark, sword fern, forest greenery. _____

8. Complete one of the following:

- a. Show types of wood material that can be cut without injury to the forest. _____
- b. Clear out a spring to provide water for a recreation area. _____
- c. Make a list of native forest trees in your area and be able to identify them. _____
- d. Plan and supervise games for a 4-H forestry outing. _____
- e. Plan and help conduct a campfire program. _____
- f. Collect specimens and help conduct a forestry identification contest. _____



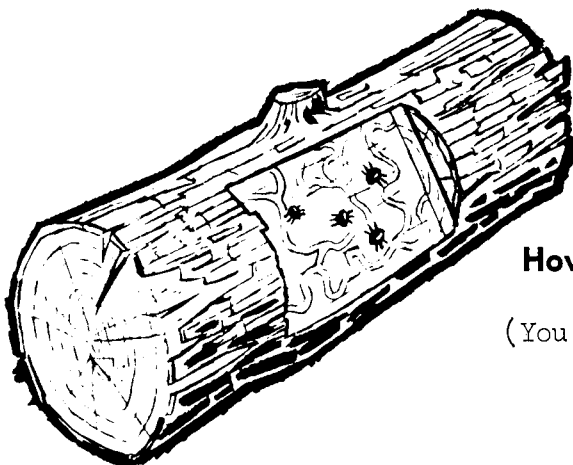
How to Become a 4-H Senior Forest Manager

(You must have completed the 4-H Jr. Forest Manager)

	<u>Date</u>	<u>Leader's initials</u>
1. Sketch or trace a map of a small woodland. (Aerial photos are a good starting point.) Go over the ground carefully and color on the map the portions that will (1) reforest naturally, (2) need artificial reforestation. Show location of surface features such as roads, fences, streams, trails, buildings, etc. Indicate north on the map.	_____	_____
2. Complete one of the following:		
a. Release 50 or more coniferous seedling trees from brush.	_____	_____
b. Transplant 10 native trees from an undesirable to a desirable location.	_____	_____
c. Grow 100 or more forest trees from seed.	_____	_____
3. Give a demonstration related to forest management.	_____	_____
4. Make a growth study of 10 forest trees of the same species. Record opening of buds, flowering, fruiting, wildlife use, d.b.h., height, and branch or leader growth of each.	_____	_____
5. Cruise a one-fifth acre circle or a one-fourth acre square forest plot, or about 20 trees, and measure the merchantable (saleable) trees. All members of a club may use the same area but each member will make his own estimate of merchantable trees in board feet or cords. Since cruising is often considered a two-man job, two 4-H'ers may work together in cruising the plot.	_____	_____
A local forester will usually instruct 4-H forest managers in cruising the plot. The tools needed are not difficult to obtain. Follow these steps in measuring the volume of a standing tree:		
a. Measure the diameter of the tree in inches at $4\frac{1}{2}$ feet above average ground level. (This is d.b.h.--diameter at breast height.)		
b. Estimate the total height of the tree in feet or estimate the number of usable 16-foot logs that can be cut from it. The method you use depends upon the tree volume tables you have.		
c. Use tree volume tables to look up the volume of the tree in board feet or in cords.	_____	_____

	<u>Date</u>	<u>Leader's initials</u>
6. Complete one of the following:		
a. Make a reproduction or stand count in a small reforestation area.	_____	_____
b. Label trees and shrubs in a park or recreational area.	_____	_____
c. Trap or poison mice or treat trees to prevent rodent or deer damage.	_____	_____
d. Carry out a mountain beaver or porcupine eradication program where damage occurs.	_____	_____
7. Complete one of the following:		
a. Thin or help in thinning a young coniferous stand.	_____	_____
b. Practice erosion-control tree planting.	_____	_____
c. Make cuttings of black cottonwood and reforest an abandoned wet meadow or other swampy area not now producing a desirable crop.	_____	_____
8. Complete one of the following:		
a. Serve as a junior leader of a 4-H Club.	_____	_____
b. Give a talk or demonstration on some phase of forestry on radio or TV or at a meeting other than your 4-H Club.	_____	_____
c. Plan and help conduct an outdoor Sunday service.	_____	_____
d. Help prepare an educational forest display for a store window or meeting.	_____	_____
9. Demonstrate how to use safely an axe and two other forest tools such as pruning saw, knife, machete, planting hoe, hazel hoe, or power saw.	_____	_____
10. Complete one of the following:		
a. Develop a spring or water hole for fire protection purposes.	_____	_____
b. Participate in some local fire prevention or suppression activity as approved by your local forest warden, Keep Oregon Green Association, ranger, or other forestry representative.	_____	_____
c. Develop fire trails around and through a piece of woodland or work on a fire line.	_____	_____
d. Locate a supply of fire fighting water and plan access to it.	_____	_____





How to Become a 4-H Junior Forest Scientist

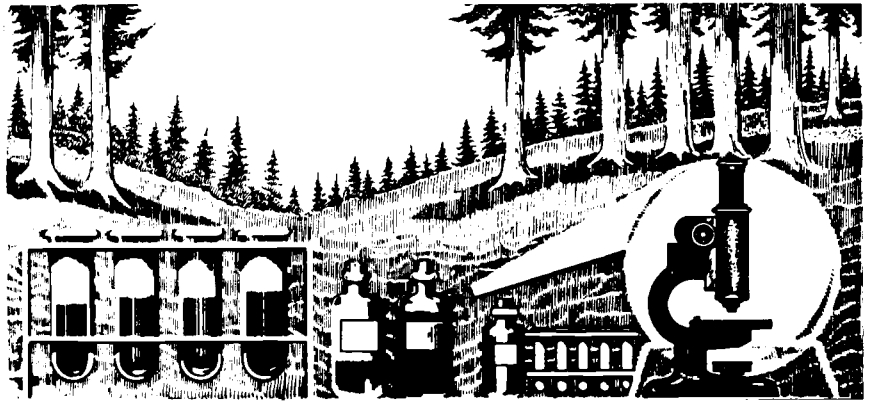
(You must have completed the 4-H Woodsman)

	<u>Date</u>	<u>Leader's initials</u>
1. Complete a simple research problem pertaining to forestry and write a 300-word or longer report on the problem. (Some suggestions are a study of forest insects and diseases, wood by-products, use of wood wastes from a lumber mill, fire control, and treatment of Christmas trees for fire resistance.)	_____	_____
2. Make an exhibit of lumber grades and list uses for the various grades.	_____	_____
3. Collect, identify, and mount 6 examples of harmful forest insects, fungi, or mistletoe and show or give examples of damage they do.	_____	_____
4. Prepare or help prepare an exhibit for a store window, meeting, or a fair on some phase of forest research you wish to carry out. One of the other requirements of this project may be used.	_____	_____
5. Complete one of the following:		
a. Make a cone or seed pod collection of at least 12 species of trees. Identify each species.	_____	_____
b. Collect seed of 12 trees and shrubs; dry, clean and put in small cellophane envelopes for display. Identify.	_____	_____
c. Make a germination test of seed collected by cutting a given number of seeds, keeping the count of the good ones or by planting seed in a box and recording the number that germinate.	_____	_____
6. Complete one of the following:		
a. Provide a movie or slides on some phase of forestry science for your 4-H Club.	_____	_____
b. Plan and supervise games for a 4-H outing.	_____	_____
c. Plan and help conduct a campfire program.	_____	_____

	<u>Date</u>	<u>Leader's initials</u>
d. Collect specimens and help conduct a forestry identification contest.	_____	_____
7. Complete one of the following:		
a. Make an exhibit of Oregon's major forest products.	_____	_____
b. Make a growth study of 3 different species of forest trees. Record opening of buds, flowering, fruiting, wildlife use, d.b.h., height, and branch or leader growth.	_____	_____
c. Make a wood sample collection of at least 15 different woods.	_____	_____
8. Present a demonstration to your club or some other group on some phase of forestry which interests you.	_____	_____

How to Become a 4-H Senior Forest Scientist

(You must have completed the 4-H Junior Forest Scientist)



	<u>Date</u>	<u>Leader's initials</u>
1. Investigate some phase of forestry which interests you and write a 500-word report on your research. Some suggestions include selection of superior tree strains, hybridization, wood preservation methods, and structural strength of wood.	_____	_____
2. Make a talk concerning forestry before your club, another group, or on radio or TV.	_____	_____
3. Complete one of the following:		
a. Make a survey of at least 20 families to determine the kind and size Christmas tree that is most popular in your community.	_____	_____
b. Make a study to determine all of the native edible plants available in a given area.	_____	_____
c. Measure and record the amount of rainfall over a year's period.	_____	_____
d. Prepare and treat 10 or more posts with an effective wood preservative.	_____	_____
4. Write an essay on the influence forest and range management has on the supply of irrigation water and water for other uses.	_____	_____
5. Complete one of the following:		
a. Serve as a junior leader of a 4-H Club.	_____	_____
b. Prepare or help prepare an educational forestry display for a store window or meeting.	_____	_____
c. Plan and help conduct games and other activities for an outdoor meeting or gathering.	_____	_____

<u>Date</u>	<u>Leader's initials</u>
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d. Help organize a 4-H forestry club in some community in your county.

e. Serve as a camp counselor.

6. Complete one of the following:

a. Do some decorative tree planting.

b. Develop native trees, shrubs, or a flower plantation or arboretum.

c. Near the end of fall, count the survival of forest tree seedlings planted the preceding winter.



7. Study the interrelationship of climate, wildlife, aquatic life, soils, and forests on a piece of forest land with which you are familiar. Write a 500-word report on your concept of this interrelationship and the observations you have made in the forest.

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