

18 USC 707

Trees In Your Backyard



4-H Forestry Projects

Book One: Trees In Your Backyard

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What's Inside:

Activity 1. Looking at Leaves - Broad-leaved Trees

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Activity 4. Making a Leaf Collection

Activity 5. Making a Seed Collection

Activity 6. Nominating a Big Tree

Activity 7. Ideas for Exhibits, Presentations, Community Service

Helpful Web Sites

For tree identification:

www.fw.vt.edu/dendro/forsite/welcome.htm

For Virginia 4-H Projects and Activities:

www.ext.vt.edu/resources/4h/eenr.html

Note to Parents:

This project introduces youth to the study of trees by having them look at the leaf characteristics of trees in their backyard or nearby forest. The illustrations in this book represent 22 of the most common trees in Virginia. Youth may want to purchase or borrow a tree identification guide to help with some of the less common species.

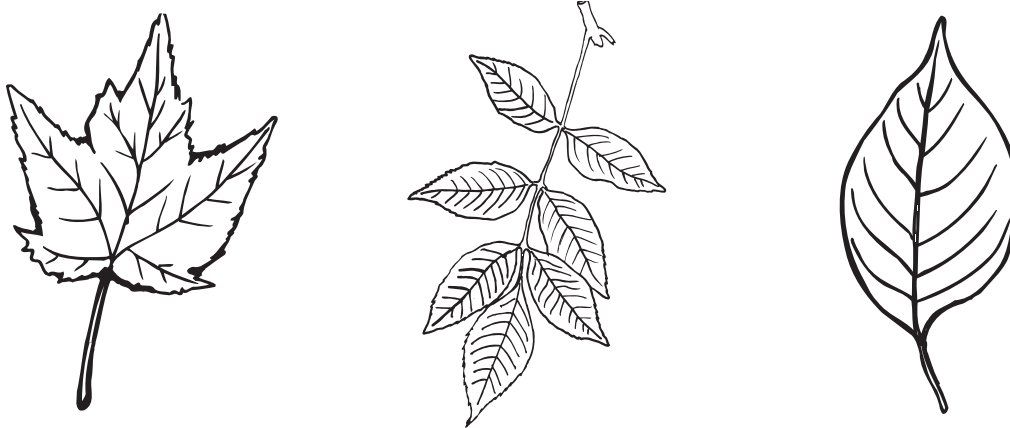
Activity 1

Looking At Leaves - Broad-Leaved Trees

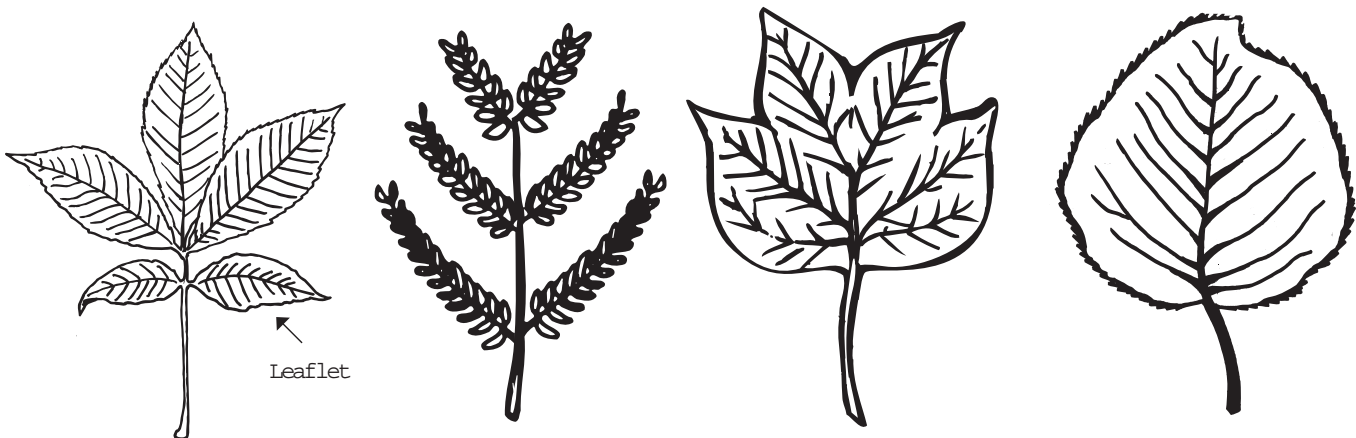
Step 1. Look at the arrangement of buds and leaves on a stem. Learn to recognize the difference between opposite and alternate arrangement.



There are only three major trees in Virginia that have opposite arrangement. Think of the word "MAD" for Maple, Ash, and Dogwood.



Step 2. Learn to recognize the difference between simple and compound leaves. Simple leaves have a single blade emerging from one bud. Compound leaves have three or more leaflets emerging from one bud.



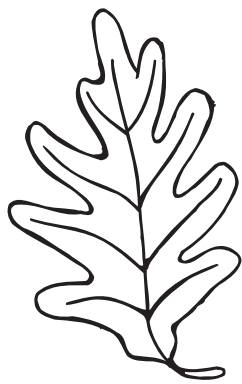
Compound Hickory

Double-Compound Honey

Simple

Simple

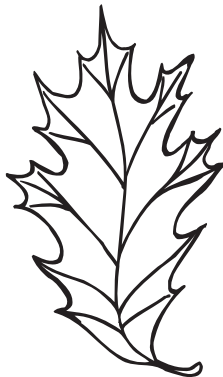
Step 3. You will also need to recognize leaf lobes and their shapes.



Rounded lobes



Rounded lobes



Pointed lobes

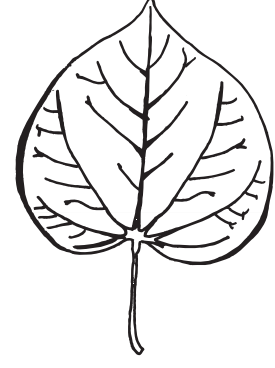
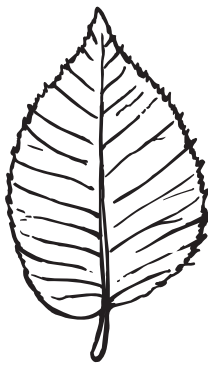


Pointed lobes



NO lobes

Step 4. Look at the edges, or margins of a leaf. Many leaves are toothed, or serrated. Others are not.



Blackgum or

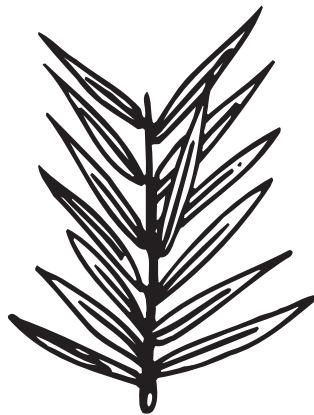
Activity 2

Looking At Leaves - Conifers

Most conifers have needle-like leaves and are evergreen. The fruit of conifers is a cone, which is actually a "stage" for releasing seeds. To identify conifers, look at the form and number of needles.



Needles Scale-like



Single Needles



2 Needle Cluster
Virginia Pine



3 Needle Cluster
Loblolly Pine



Needle Clusters

Activity 3

Use This Key To Identify Several Trees

Key To Leaves Of Virginia Trees

- I. Leaves Broad; definitely not needle-like or scale-like; mostly deciduous
 - A. Leaves, buds, branches have opposite arrangement - **maple, ash, dogwood**
 - B. Leaves, buds, branches have alternate arrangement
 1. leaves are compound - **walnut, hickories, locust**
 2. leaves are simple
 - a. leaves have rounded lobes - **white oaks, sassafras, mulberry**
 - b. leaves have pointed lobes - **red oaks, sycamore, sweet gum, holly**
 - c. leaves have no lobes
 - i. leaves have smooth (entire) margins - **willow oak, live oak, paw-paw, redbud, tupelo, persimmon, magnolia**
 - ii. leaves have toothed margins - **willow, birch, true poplars, birch, hornbeam, chestnut, elm, hackberry, cherry, sourwood, basswood**
- II. Leaves needle-like (pines) or scale-like (cedar)
 - A. needles in clusters or bundles (pines)
 1. 5 needle clusters - **white pine**
 2. 3 needle clusters - **loblolly pine**
 3. 2-3 needle clusters - **short-leaf pine**
 4. 2 needle clusters - **Virginia pine**
 - B. needles appear singly, not in clusters
 1. needles 4-sided, roll between fingers - **spruce**
 2. needles 2-sided, do not roll - **eastern hemlock**
 3. needles feather-like, found growing in swamps - **baldcypress**
 - C. needles are scale-like, overlapping to make branches that look flat.
 1. fruit a berry-like cone - **redcedar**

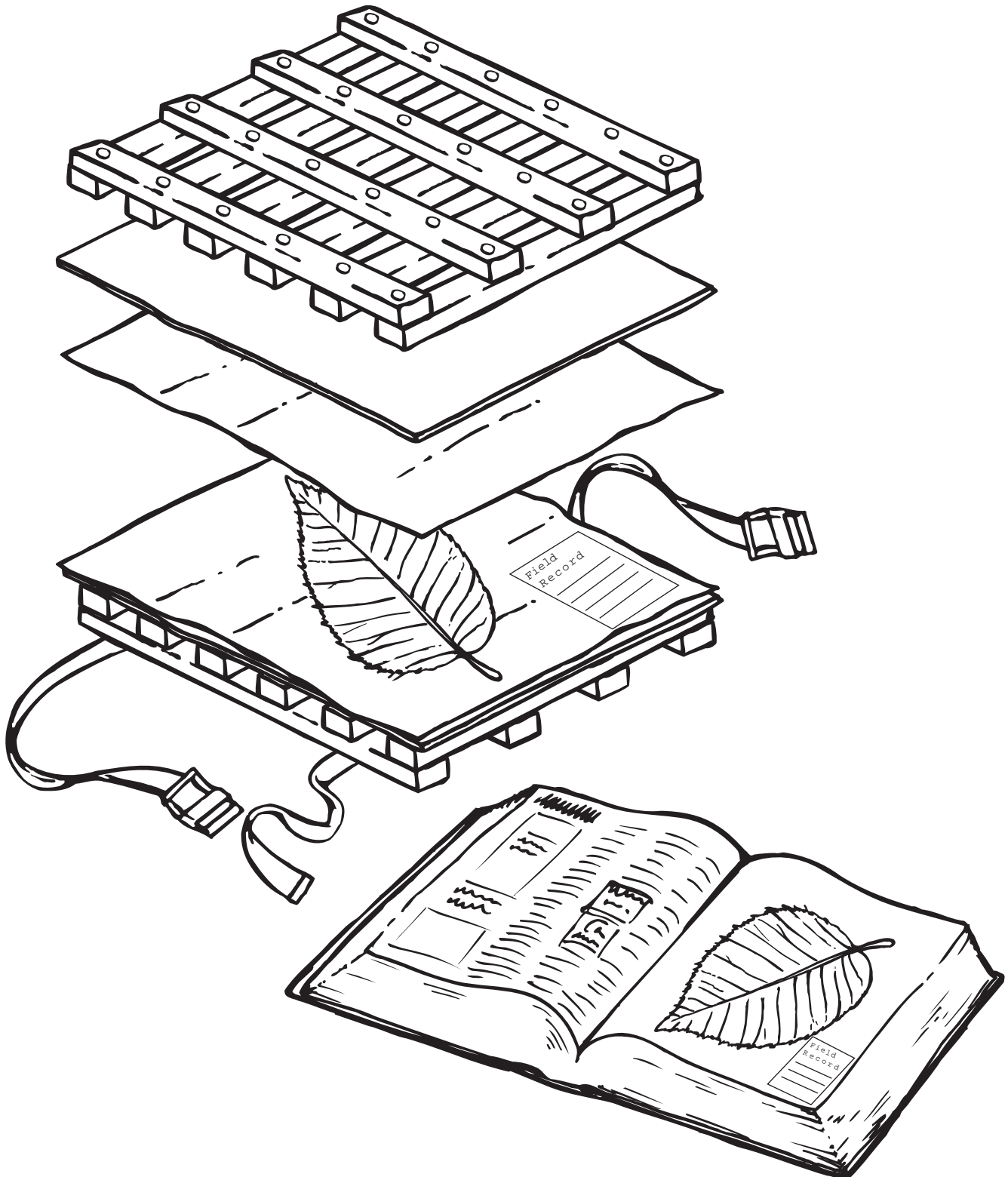
2. fruit like a small pine cone - **white cedar**

Activity 4

Making A Leaf Collection

Making a leaf collection

A leaf collection is easy to make and does not injure a tree as long as you are careful to remove only one or two leaves. To make a collection for display, you will need to dry your leaf for several days in a flat position, then glue your leaf to heavy paper. Serious



students and professionals use a leaf press to dry their leaves, but you can use a tele-

Field record

Common name:

Date:

Location:

Where collected:

woods yard near stream or river

hillside other

Notes:

Field record

Common name:

Date:

Location:

Where collected:

woods yard near stream or river

hillside other

Notes:

Field record

Common name:

Date:

Location:

Where collected:

woods yard near stream or river

hillside other

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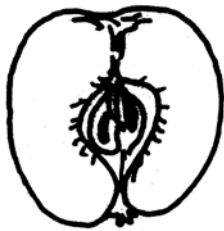
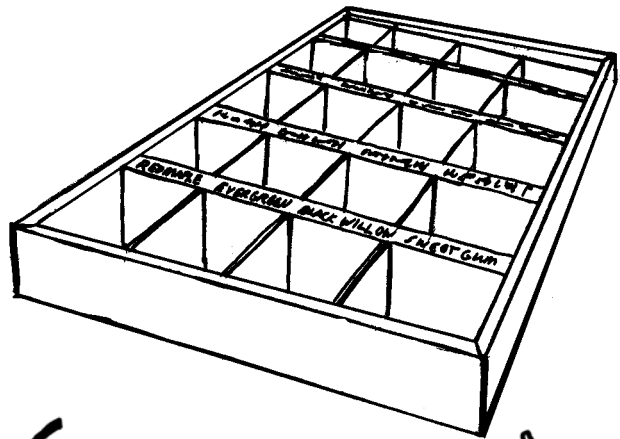
hillside other

Notes:

phone book. Be sure to complete a field record for each tree you identify. Copy this page so that you will have enough Field Records to complete your project. Activity 5

Making A Seed Collection

Most seeds ripen in the fall, but some can be collected in spring and summer. Try to get as



Pome
Wild Crab Apple



Drupe
Cherry



Multiple Fruit of
Small drupes
Red Mulberry



Berry
Persimmon



Legume
Black & Honey Locust



Samara
Ashes, Elms
Maples



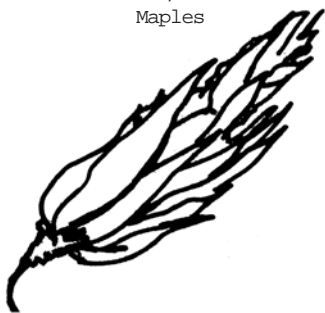
Samara
Slippery Elm



Double Samara
Sugar Maple



Capsules
Mountain Laurel & Willow



Group of Samaras
Yellow Poplar



Strobile:Winged Nutlet
Gray Birch



Group of Follicles
Magnolia



Nutlet
Hornbeam



Nut (Dehiscent Husk)
Hickory



Nut (Indehiscent)
Oak Acorn



Multiple (Head of Nutlets)
Sycamore



Cone
Hemlock

Activity 6

Nominating a Big Tree



4-H Member Big Tree Report Form
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You can report a big tree online or by filling out the form below and mailing to:

Extension Specialist, 4-H
College of Natural Resources (0324)
Virginia Tech
Blacksburg, VA 24061

Name: _____

E-mail: _____

Address: _____

County where tree is found: _____

Species (scientific name): _____

Species (common name): _____

Circumference at 4.5 ft to nearest half inch: _____

Date measured: _____

Property owner's name: _____

Location of the tree:(provide directions from the nearest state road intersection): _____

Visit the 4-H big tree website: <http://www.fw.vt.edu/4h/bigtree/youth.html>

many types of seeds as you can. Use an "organizer" box to keep your seeds separated. Label each type of seed with the common name of the tree that produced it.

Activity 7

Ideas For Exhibits, Presentations And Community Service

Exhibits

- Collection of nuts, fruits and seeds of trees
- Leaf collection (dried, and pasted on paper)
- Wood samples (blocks of wood, labeled)
- Photographs (compare bark or shape of trees)
- Drawings (compare trees growing in different environments, or at different ages)

Presentations

- "The 10 most important trees of _____ County"
- "How to identify trees" (show examples of opposite vs. alternative, simple vs. compound)
- "How trees are used" (show examples of paper, lumber, veneer, plywood, etc.)
- "The pines of Virginia" (do a combination of identification and uses)
- "The white oak tree" (tell all you know about one species)

Citizenship

- Keep a scrapbook that illustrates the value of trees to people, and show it to others.
- Read a book about trees to a younger audience.
- Donate a leaf/seed/photo collection to a library or teacher.
- Identify the trees at your school for nature study.
- Help organize or conduct an Arbor Day activity.
- Draw a poster about trees or forests, and exhibit it in a public place.
- Take your club members for a hike and show them how to identify trees.
- Assist with teaching a nature class at camp.
- Make a video about trees, and show it to a group.
- Lead a tree walk at vacation bible school or church school.

- Nominate a big tree.

Activity 8

4-H Tree Identification Project Record

Your Name _____

Address _____

Name of your School or 4-H Club _____

Part A. Note the name, location, and date of any trees you learn to identify

| Name of tree | Location of tree | Date | Notes |
|----------------------|-----------------------------|----------------|-------------------------|
| Ex. <u>White oak</u> | <u>my back yard at home</u> | <u>9/15/01</u> | <u>acorns on ground</u> |
| 1. _____ | _____ | _____ | _____ |
| 2. _____ | _____ | _____ | _____ |
| 3. _____ | _____ | _____ | _____ |
| 4. _____ | _____ | _____ | _____ |
| 5. _____ | _____ | _____ | _____ |
| 6. _____ | _____ | _____ | _____ |
| 7. _____ | _____ | _____ | _____ |
| 8. _____ | _____ | _____ | _____ |
| 9. _____ | _____ | _____ | _____ |
| 10. _____ | _____ | _____ | _____ |

Part B. Complete at least one of the following activities.

| Activity | Date Completed |
|--|----------------|
| 1. Exhibit your collection of leaves, fruits, or other items | _____ |
| 2. Give a presentation on tree identification or forestry. | _____ |
| 3. Do a citizenship activity related to forestry. | _____ |

Part C. My 4-H Story

On a separate sheet of paper, write about your experiences in this project. Tell us things like how you selected your trees for study, and what books or resources you used to identify them. Also tell us what trees were hard to identify, and how you solved any problems. Finally, tell us how you communicated with others when you were learning about trees and having your work checked by an adult. Did you say, "thank you" to those who helped you?

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