

Name _____ Date _____

Leaf Collection Project **adapted from a project by Cheryl Massengale**

Assignment: You are to create a leaf collection booklet containing leaves from **SIX** different species of trees. Your collection must contain **at least 5 leaves from broadleaf trees**. You may choose your remaining leaf from broadleaf, needle-leaf or scale-leaf trees. You may use only **ONE** maple leaf. **Only trees on the 2015 List of Trees may be used. This year, you must paste two leaves from each species on a page. One leaf will show the top of the leaf; the other will show the bottom of the leaf.**

Materials needed:

cardboard (for leaf press)	sturdy paper for mounting
black ink pen	index cards/ white paper for labels
glue/tape	taxonomic keys/field guides
paper towels/newspaper (for leaf press)	

Directions for making a leaf press

1. Cut 1 square of cardboard roughly 15 inches by 15 inches in size.
2. Place the cardboard on a hard surface out of the way of young children and pets. Place five (5) pieces of paper towels or 5 pieces of newspaper on top of the cardboard.
3. Arrange a few of your leaves on the paper towels/newspaper.
4. Cover with 5 additional pieces of paper towels/newspaper.
5. Repeat with an additional layer of leaves and another layer of paper towels/newspaper.
6. Finish with another 15" by 15" cardboard square.
7. Place several heavy books on top of your press.
8. Change the paper towels/newspaper every 2 or 3 days.
9. Depending on the size of your leaves, you may have to add an additional level of cardboard and paper towels/newspaper.

Collecting and Pressing Your Leaves

1. Always get permission before collecting leaves on someone else's property.
2. Collect at least **three** of each type of leaf in case one of the leaves tears. If leaves are damaged or torn, don't use them because you will not receive full credit.
3. Be sure to remove an entire leaf, not a leaflet, from the tree and place it in your press as soon as possible.
4. Leaves should remain in the press for 3 - 5 days depending on their thickness and moisture content. Remember to change the newspaper or paper towels when needed.

Labeling Your Leaves

1. You may use index cards or white paper for your labels.
2. You may either type or handprint your information. Do not cross out or white out mistakes on the labels; rewrite them. Labels must be neat and easy to read. Use only black ink whether you are typing or writing your labels.
3. Each label must contain the following information in the following order:
 - a. Common name of leaf
 - b. Scientific name of leaf – Be sure to obey the three rules for writing scientific names.
 - c. Tree type – broad-leaf, needle-leaf, scale leaf
 - d. If your specimen is from a broadleaf tree, then the following information is also required:
 1. Leaf type – simple or compound
 2. Leaf margin – entire, toothed or lobed
 3. Vein pattern – parallel, palmate or pinnate

Mounting Your Leaves

1. Use pieces of sturdy paper to mount your leaves.
2. Each page will have two leaves: one will show the top of the leaf and the other will show the bottom of the leaf. However, each species must have its own page in your booklet.
3. Arrange the leaves so there is room to glue the label at the bottom of the page. The leaf should look nice on the page. **Use tape to mount needle- or scale-leaves to the paper.**
4. Use a **small** amount of glue to adhere the completed label. Center the label below the leaf.
- 5. LET THE PAGES DRY COMPLETELY BEFORE ASSEMBLING THEM TOGETHER IN YOUR COLLECTION OR THE PAGES WILL STICK TOGETHER!!**
6. Make a front cover for your collection. Include the following items on your cover:
 - a. title
 - b. your name
 - c. an appropriate illustration (no glitter, please!)
7. Use ribbon, string, etc. to bind the pages together.

On-line Leaf Identification Guides:

Alabama Cooperative Extension: <http://www.aces.edu/natural-resources/forestry/tree-identification/leaves.php> (Good resource)

Leafsnap: <http://leafsnap.com/species/> (Another good resource)

Virginia Tech (older version): <http://dendro.cnre.vt.edu/forsite/key/intro.htm>

A Guide to Hardwood Trees: <http://www.bio.brandeis.edu/fieldbio/emmae24/intro.html>

University of Tennessee Tree Identification Guide: <http://forestry.tennessee.edu/treeid.htm>

About.com: http://forestry.about.com/od/treeidentification/tp/tree_key_id_start.htm

Ohio Public Library: <http://www.oplin.lib.oh.us/tree/name/commonname.html>

Due date: October 16, 2015

Project Value: 200 points

Example of a complete label:

California Buckeye

Aesculus californica

Broadleaf tree

Leaf Type: Compound

Leaf Margin: Toothed

Vein Pattern: Pinnate

Time Management Tips:

1. September 18th to October 2nd: collect and press leaves
2. October 5th to October 9th: complete labels
3. October 10th to October 16th: assemble booklet

Directions and additional resources are available at:

<http://www.mrsscienceteacher.com>

Please turn over for the 2015 Tree list

Tree List for 2015 Leaf Project

Pick a maximum of one of the following:

Eastern hemlock

Eastern white pine

Eastern red-cedar (aka red cedar)

Northern white-cedar (aka Eastern white-cedar OR arborvitae)

Tamarack

White spruce

Umbrella pine

Red pine

Pick 5 or 6 of the following:

Ginkgo

Sugar maple*

Gray birch

American chestnut

Northern red oak

Shagback hickory

Sassafras

Honey locust

Tulip tree (Yellow-poplar)

White ash

Boxelder

American basswood (American linden)

Red maple*

Japanese maple*

Flowering dogwood

American beech

Eastern cottonwood

Sweetgum

Silktree

Black locust

Northern catalpa

American sycamore

American elm

Silver maple*

River birch

Pawpaw

White oak

American holly

Horse chestnut

Eastern redbud

Quaking aspen

White mulberry

Weeping willow

Big-tooth aspen

*Only one maple may be used