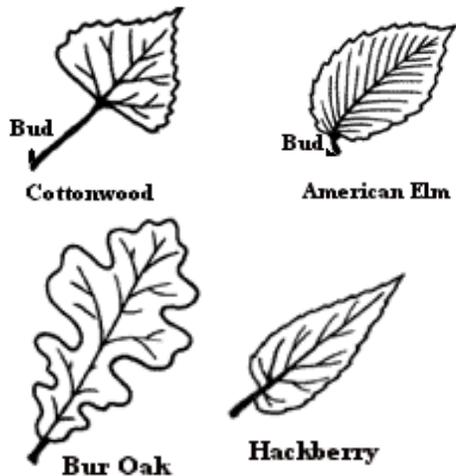


What is a leaf?

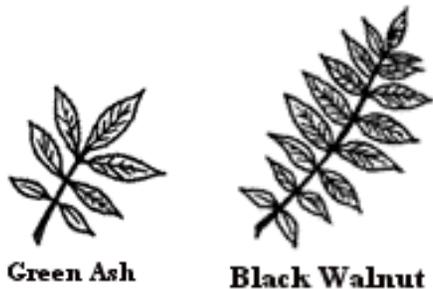
This may be a silly question, but it's not always easy to tell. A leaf is whatever is above ONE BUD. In some trees, the leaf is *Simple*. In other trees the leaves are composed of several leaflets and are said to be *Compound*. When in doubt, look for a bud, or swollen area, at the base of the stem. Everything above one bud is one leaf.

Use these diagrams and just follow the trail of questions on the inside to identify your tree.

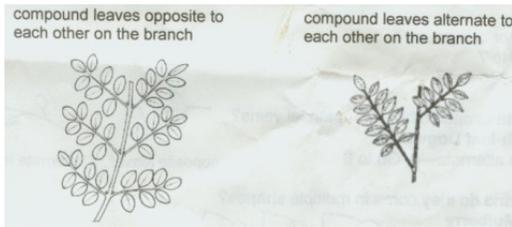
Simple Leaves



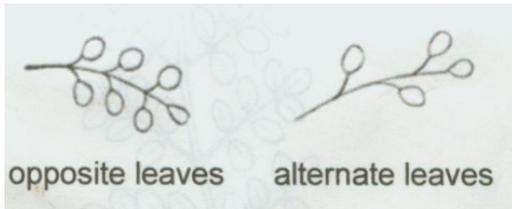
Compound Leaves



Doubly Compound Leaves



Opposite vs Alternate Leaves



A Dichotomous Key (better known by computer geeks as a Binary Tree) allows the user to follow a series of questions where the answers either lead to another question or to a final result.

In this case the Questions start with Question #1 and the final result will be the species of tree you are looking for. But only if you answer the questions correctly. So be careful.

Use the figures to the left and above when a question is asked about leaf characteristics.

This Key won't identify *all* trees in the meadow but it will get most of the common ones.

connemara

Connemara Conservancy
Foundation

The Meadow Preserve

Tree Identification

Using a

Dichotomous Key



This key was developed with the participation and permission from sources including the Lewisville Independent School District (LISD) and the Lewisville Lake Environmental Learning Area (LLELA)

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1. Does the tree have needles or leaves?
Needles – **Eastern Red Cedar**
Leaves – Go to 2

2. Do the branches have thorns?
Yes – Go to 3
No – Go to 6

3. Are the leaves simple or compound?
Simple – **Bois d’Arc**
Compound – Go to 4

4. Are the leaves doubly compound?
(see opposite side)
Yes – Go to 5
No (only once-compound)
– **Prickly Ash**

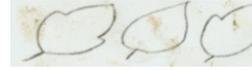
5. Are the thorns very stout, long and in some cases branched with more thorns?
Yes – **Honey Locust**
No, thorns are short and unbranched
– **Honey Mesquite**



6. Are the leaves simple or compound?
Simple – Go to 7
Compound – Go to 17

7. Are the leaves opposite each other with parallel veins?
(see opposite side)
Yes – **Rough-leaved Dogwood**
No – leaves are alternate
– Go to 8

8. Are the leaves large and come in multiple shapes?
Yes – **Red Mulberry**
No – Go to 9



9. Are the leaves lobed?
Yes – Go to 10
No – Go to 12

10. Are the lobes pointed at the end or rounded?
Pointed – Go to 11
Rounded – **Bur Oak**

11. Does the leaf have only one vein running up from the base or are there more than one?
One – **Shumard Red Oak**
Multiple – **American Sycamore**



12. Is the leaf heart or triangle shaped?
Yes – Go to 13
No – Go to 14

13. How is the leaf shaped?
Heart-shaped with a smooth edge
– **Redbud**
Triangular with a toothed edge
– **Eastern Cottonwood**



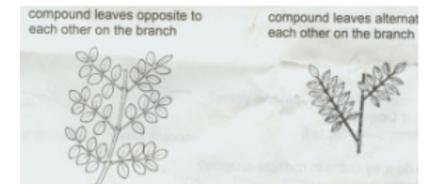
14. Is the edge of the leaf toothed?
Yes – go to 15
No, the edge is mostly smooth
– **Sugar Hackberry**

15. Are the leaves long, skinny and pointed?
Yes – **Black Willow**
No – Go to 16

16. How long is each leaf?
3-6 inches – **American Elm**
1-2 inches – **Cedar Elm**

17. How many leaflets are in each compound leaf?
3-5 leaflets – **Box Elder**
More than 5 leaflets – Go to 18

18. Which description is correct?
Compound leaves are directly opposite each other on the branch and each leaf has 7-9 leaflets? – **Green Ash**
Compound leaves alternate along the branch and each leaf has 9-17 leaflets? – **Pecan**



The above species are the most common, but other trees that you may also see in the Meadow Preserve include

Eve’s Necklace
Mexican Plumb
Common Persimmon
Soapberry
Smooth Sumac
Possumhaw Holly
Chinese Tallow
Black Walnut