

Name: _____

Date: _____

Class: _____

Dichotomous Key Activity

In this activity, you will be using a **dichotomous key** found at the *LEAF* web site (put together at the University of Wisconsin-Stevens Point) to identify an unknown tree. After identifying the unknown tree, you will follow a link from that site to the *Silvics of North America* web site (USDA Forest Service Northeastern Area - St. Paul Field Office) to collect some information on your tree and fill in the worksheet included with this exercise.

Instructions:

1. Open your web browser.
2. Type in the address for the *LEAF* web site.(www.uwsp.edu/cnr/leaf)
3. Click on the “Tree Identification” link.
4. Choose “LEAF On-line Tree Key.”
5. Read the sections on the left entitled “What is a Dichotomous Key?” and “How to use this key.” We will be doing exercise #2.
6. After you’ve read the instructions, scroll down in the left hand frame until you see the list of numbers. Click on the number you’ve been given for your “unknown tree.”
7. Using the images shown in the left hand frame, answer the questions in the right hand frame until you get the pictures in the two frames to match. If you have trouble answering any of the questions, ask your instructor for help.
8. Once you get the pictures to match – Congratulations! You’ve identified your tree – scroll down to the bottom of the right hand frame and click on the link for *Silvics of North America* to learn more about your tree.
9. Fill out the worksheet on your tree using the information you find at this site.

Resources:

University of Wisconsin-Stevens Point

(www.uswp.edu)

LEAF Website

(www.uswp.edu/cnr/leaf)

USDA Forest Service Northeastern Area - St. Paul Field Office

(www.na.fs.fed.us/spfo)

Silvics of North America - online book/publication with information on around 200 trees

(www.na.fs.fed.us/spfo/pubs/silvics_manual/table_of_contents.htm)

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Tree Information Worksheet

Scientific name: _____

also known as:

Common name: _____

Family name: *(scientific)* _____

(common) _____

Range:

Climate (what range of temperatures and rainfall does this tree grow in):

Size/longevity (height, width/diameter, life span):

Damaging agents (major or most damaging - list a maximum of 5):

Used for (this could be uses by humans and/or animals, plants, or other organisms):

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Instructor's Guide

Number of students: Up to 25 students. Can team students up, but better as individual exercise.

Time required: apx. 60 mins.

Prep. time required: 5-10 mins.

Equipment required: Computer (with internet connection & web browser) for each student

Preparations: Assign each student a number from 1-27 (not including 20 or 21). These will be their unknowns that they have to key out and report on. For students who have a conifer (see below), they should also key out #20 before they do their unknown. For students with a deciduous tree, they should key out #21 before they do their unknown.

Students looking for unknowns # 2, 3, 5, 7, 12, 14, 19, 21, 22, 23 (conifers) should key out unknown #20 first.

Students looking for unknowns # 1, 4, 6, 8, 9, 10, 11, 13, 15, 16, 17, 18, 20, 24, 25, 27 (deciduous trees) should key out unknown #21 first.

Notes/Comments: Have the students look at their information worksheet with you before they start. Make sure they understand the information they're looking for. The site also has a lot of very technical information, and they shouldn't be intimidated. Remind students to look very carefully at the information on their unknown (in the left frame). There is sometimes text as well as pictures. If students can't find a question or tree which matches their unknown in the right hand column, they either need to back up to a question they answered incorrectly earlier or possibly scroll down *completely* within the frame they're in as there may be additional choices they don't see.

Key to trees on LEAF Site:

- | | | |
|-----------------|-----------------------------|----------------------|
| 1. Black Cherry | 11. Cottonwood | 21. Black Spruce |
| 2. White Pine | 12. Balsam Fir | 22. Red Pine |
| 3. Tamarack | 13. Basswood | 23. White Spruce |
| 4. White Birch | 14. Eastern Hemlock | 24. Yellow Birch |
| 5. Jack Pine | 15. American Beech | 25. Black Ash |
| 6. Black Walnut | 16. Trembling Aspen | 26. Norway Spruce |
| 7. Scotch Pine | 17. Red Maple | 27. Shagbark Hickory |
| 8. Sugar Maple | 18. Big Toothed Aspen | |
| 9. Red Oak | 19. Northern White
Cedar | |
| 10. White Ash | 20. White Oak | |