



Champions Among Us

Summary: Using state government websites and the *Lynn Fork of Leatherwood* scene from the documentary, **A Force for Nature: Lucy Braun**, students will learn about champion native and non-native trees.

Materials:

- Yard stick
- Measuring tape
- County map of Ohio or Kentucky, attached
- Field guides on trees
- Poster board (1 per student or group)

Introduction:

Within the *Lynn Fork of Leatherwood* scene of the documentary, the idea of champion trees is introduced. These trees become champions due to the measurements of their **crown**, **circumference** and **height**. States and the nation have lists of trees that have been recorded as a species champion. These are recorded at the state and national level.

Procedure:

1. Have the students watch the scene, *Lynn Fork of Leatherwood* from the documentary through minute 32:30 to hear the concept “**Record Tree**”. As a class, discuss what it means to hold a record for something such as sports, spelling, or score in an electronic game. Share the fact that there are trees that hold records in your state and also in the nation.
2. Using the link provided, learn how to measure a tree. (http://www.oaklandnet.com/big_tree_registry/howtomeasure.pdf) Use a tree in the school yard to complete the following measurements. Have the students practice measuring trees.
 - a. Using a yard stick, measure 4.5 feet up the trunk of the tree. At this height, wrap a measuring tape around the tree to find its circumference.
 - b. Have 4 students stand under the edge of the crown of the tree. One pair should demonstrate the widest part of the crown and one pair the narrowest part of the crown. Measure the distance between each pair, add the totals together and divide by two to find the average circumference.

- c. Using the techniques shown from the downloaded PDF, estimate the height of the tree.

Grade Level: Upper Elementary

Subjects: Math, Science, Language Arts, Social Studies, Technology

Objectives:

Students will be able to:

- Explain the characteristics of Champion Trees,
- Demonstrate how to measure the circumference, crown and height of a tree,
- Identify counties in their state that have Champion Trees,
- Distinguish between native and non-native species,
- Use the internet to find information on Champion Trees,
- Use resources to find information on tree species,
- Share information they have learned with their peers.

Teacher’s Notes:

- Viewing the *Introduction* and the second scene, *A Natural Connection*, is strongly encouraged in order to introduce Dr. Braun and her sister and to provide context to their lives and work.
- Past minute 32:30 in the scene, *Lynn Fork of Leatherwood*, the film tells the story of how Dr. Braun tried and failed to save that piece of forest from being timbered. Teachers should preview this part of the film and decide if it is appropriate and relevant to the lesson.
- “The big poplar” is a species of tree in the Magnolia family. Its scientific name is *Liriodendron tulipifera*. Its common names include tulip tree and tulip poplar.





Lucy Braun stands near a tulip poplar tree located at Lynn Fork of Leatherwood in Perry County, Kentucky, during field work in 1933. Despite Braun's efforts, this old-growth forest was logged four years later. The loss of Leatherwood strengthened Braun's resolve as a conservation leader. Courtesy: Smithsonian Institution Archives, Image #SIA2007-0031

Ohio Students

3. Have students use the internet to find the Ohio Department of Natural Resources (ODNR) website on Champion Trees. Show the location of the links for native species and non-native species on the web page. Discuss the meanings of these two terms.

a. Native Species are “those that have not been introduced to an area by the action of humans. They are naturally adapted to their given area and generally have existed there for much longer than humans.” (National Park Service)

b. Non-native plant species “occur outside their native ranges in a given place as a result of actions by humans.” (National Park Service)

4. Using the chart for native species, make sure the students know how to read and interpret the information. Can they find any champion trees in their county and/or a neighboring county? What information is given about each tree?

5. Select 10 native champion trees from 10 different counties. Record them on the county map of Ohio. Select 10 non-native trees from 10 different counties and record them on the county map of Ohio. Make a key showing which champion trees are native and which are non-native.

6. Select one champion tree from the chart and research this tree species. Make a poster to introduce this tree species to the rest of the class. Some things the students could include are leaf shape, flower, fruit, bud, bark, shape of the crown and fall color. Include information about the Ohio champion of this species.

Kentucky Students

3. Have students use the internet to find Kentucky's Champion Trees listed on Kentucky's Department for Natural Resources. (<http://forestry.ky.gov/ChampionTrees/PagPa/default.aspx>) Kentucky only records native trees as champions. Discuss the meaning of native and non-native species.

a. Native Species are “those that have not been introduced to an area by the action of humans. They are naturally adapted to their given area and generally have existed there for much longer than humans.” (National Park Service)

b. Non-native plant species “occur outside their native ranges in a given place as a result of actions by humans.” (National Park Service)

4. Using the story map found on the Kentucky Champion Trees website, make sure students know how to read and interpret the information found there. Can they find any champion trees in their county and/or a neighboring county? What information is given about each tree?

5. Select 10 champion trees from 10 different counties. Record them on the county map of Kentucky. Make a key showing how long each tree has retained its record status.

6. Select one champion tree from the list and research this tree species. Make a poster to introduce this tree species to the rest of the class. Some things the students could include are leaf shape, flower, fruit, bud, bark, shape of the crown and fall color. Include information about the Kentucky champion of this species.

Extensions:

1. Using your state's website on Champion Trees, learn how to nominate a tree for record status.
2. Have students brainstorm what biotic and abiotic factors may have helped a tree become a champion.
3. Out of all the trees on the schoolyard, which one would be the Champion or Record Tree? What species is it and what are its measurements?
4. If students watched the entire scene, *Lynn Fork of Leatherwood*, have them discuss the pros and cons of timber harvesting.



Lucy (left) and Annette Braun, early leaders in the conservation movement, helped preserve natural places in Ohio and Kentucky, including The Edge of Appalachia Preserve System in Adams, County, Ohio. Courtesy: Braun Photographic Collection, Cincinnati History Library & Archives, Cincinnati Museum Center.



