

Activities Related to the Red Oak Tree Before You Go to See the Tree

- Watch a video about the oak tree.
- Read about red oak trees.

Other Activities

Mathematics

- Foresters and people in "Big Tree Societies" have tried to find the biggest trees of each native species in our state and our nation. Find lists of current champions. How do they measure to find these champions? Trees are given points for circumference, height, and spread of crown.
- Measure the circumference of the oak tree. Use a tape measure or use rope or string. Then measure the string. People who measure "big trees" measure them at a distance of 4 1/2 feet above the ground. Record your results in both feet and inches.
- Measure the spread of the crown. Find the distance from the center of the trunk to the edge of the "drip line" or edge of the farthest branches. Do this four times in four directions. Add the results and divide by four to get the average spread in feet.
- Find the height of the tree (without climbing it). People who measure trees go out one hundred feet from the center of the trunk. Then they use a special tool to sight the base and the top of the tree. The instrument gives them a reading of the height. If you want to measure with an ordinary ruler walk out far enough so you can sight both the base and top of the tree when you hold the ruler at eye level at the end of an outstretched arm. Then move your arm and the ruler back or ahead so that you can see the base of the tree at the zero mark of the ruler and the top at the ten-inch mark. Then sight across the one-inch mark. Have a partner mark that place on the tree trunk. Measure the distance from that mark to the base of the tree and multiply by ten. That should give you the approximate height of the tree.

Points for champion trees are given by adding the circumference in inches, the height in feet, and one fourth of the four measurements of crown spread in feet.

- Find out how many people it takes to reach around the oak tree.

Science

- Use a field guide to trees and find the description of the red oak. Compare the description with the actual tree.
- Find information on the Internet about Red Oak trees.
- Read to learn what other kinds of oaks there are. How do they differ from the red oak?
- Look at an oak tree in spring or look in books to see what kinds of flowers the oak tree has.
- If you have a leaf, twig, or wood sample collection, add the samples from the red oak to it.
- Look under the large oak trees for acorns or for young trees that may have been self seeded or planted by squirrels. Why would the space under a mature tree NOT be good for a young tree? Look elsewhere to find trees. Learn about the blue jay's role in spreading oak trees.

- Try planting an acorn. What does a seed need to sprout? Use graphs and calendars to keep a record of its growth.
- Compare acorns from various trees to note likenesses and differences.
- Look at burls or growths on the trunks of oak trees.
- Compare the shape of oak leaves with those of other trees.
- Observe the lichen growing on a tree. Learn about lichens and their relationship with trees.
- Sometimes a gall insect attacks the leaves of the tree. See if you can locate a leaf with a round oak gall on it.
- In colonial days people supposedly made ink out of oak galls. What kind of galls were those and where on the tree did they grow?
- Learn about the word "mast" and find out what animals might use the Red Oak.
- Foresters warn people not to prune their oak trees in certain months of the year. Find out what might happen to the trees if they did?
- Look at samples of Red Oak wood.
- Examine the nest cavities and other holes in limbs that came from the tree in a storm.

History

- When was the oak chosen as America's national tree and why? How was it chosen?
- Look at woodwork and furniture in the Kuse family home made of wood from Red Oaks on the farm.
- A large branch once broke from the oak tree in a storm. A cross sections of that branch was saved. Count the tree rings in that section. How long may that branch have been growing? How old were members of your family when this piece of wood began to grow?
- Native Americans and pioneers sometimes used acorns for food. Red Oak nuts were not usually used in this way. Read wild food cookbooks to learn how acorns from various oak trees were prepared.
- Learn about folk sayings related to oak trees. (Examples: If you have a big acorn crop there will be a severe winter. Plant your corn when the leaves on an oak tree are the size of a squirrel's ear.)

Geography

- Look at a map of hardiness zones. What is our local hardiness zone? What oak trees grow best here?

Economics

- How is wood from oak trees used? What is the economic importance of oak trees?

Arts and Crafts

- Examine figures made out of twigs and acorns or make some of your own. What other toys did children sometimes make out of acorns? (Cups and saucers for dolls, pipes, tops etc.) Ask older people what kind of play with acorns they tried.
- Take photographs, paint, or draw pictures of oak trees in all seasons. Notice the shapes and branching patterns of the trees and compare them with other trees.

Music

- Read the words to the folk song, "Old Oaken Bucket". Why were these words meaningful to people of long ago? Learn why oak wood was used to make buckets and barrels. What occupations were involved?

Language Arts

- Find an oak tree near your home. Write stories about its life and history.
- Write poems or make up crossword puzzles or word finds about an oak tree.
- Use the information you have learned to make question and answer cards for a "tree responder".

Sharing What You Have Learned

- Make a display about an oak tree. Take your display to the county fair.

Resources compiled by Dr. Hildegard Kuse and Dr. Loretta Kuse