



# WHAT'S HAPPENING, TREES?

**Materials:**

**Activity One:**

- ☆ *Hello Tree* by Joanne Ryder, *Whisper From The Woods* by Victoria Wirth, Green Tiger Press or portions of *Forest Life* by Barbara Taylor (D.K. Publishing).

**Activity Two:**

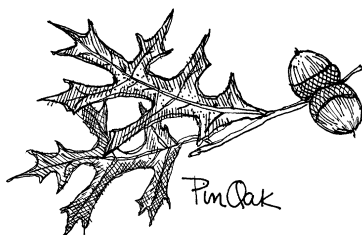
- ☆ Branches from a deciduous tree and an evergreen.

**Optional for Activity Two:**

- ☆ Hand lenses.
- ☆ *Trees of Arkansas* by Dwight Moore.
- ☆ Pictures of different trees native to Arkansas and specific to your natural division.
- ☆ Branches from a variety of native Arkansas trees showing different types of leaves, seeds, fruit and bark.

**Activity Three:**

- ☆ Butcher paper
- ☆ Markers
- ☆ Glue stick or double-sided tape.
- ☆ Fallen bark
- ☆ Twigs
- ☆ Leaves



**Rationale**

Students will develop an appreciation for the diversity of forest life by considering some common, fairly conspicuous species of Arkansas trees, their animal inhabitants, and surrounding plants.

**Objectives**

1. Students will be able to discuss the observable characteristics of a living tree in Arkansas.
2. Students will realize that there are many types of trees in Arkansas.
3. Students will compare Arkansas trees to other plants in their areas.
4. Students will construct a classroom tree illustrating the structure and function of trees.
5. Students will acquire an appreciation for the great diversity of life in and around trees in Arkansas.

**Activity One:  
*Hello Tree!***

**PROCEDURE:**

1. Read and discuss *Hello Tree*, *Whisper From The Woods* or parts of *Forest Life*.
2. Explain to the students that there are many kinds of plants in Arkansas, just as there are many kinds of animals. Some plants are woody (trees) while some are herbaceous with soft stems (most flowers). Identify the two major groups of

trees in Arkansas (evergreen and deciduous). Collect examples of evergreen branches (pine, cedar) and deciduous branches (oak, maple and elm). Compare and contrast the differences and similarities in these two groups of trees found in Arkansas.

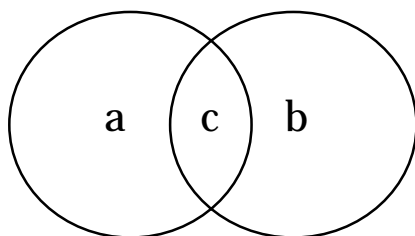
**Activity Two:  
*Meet a Tree***

**PROCEDURE:**

1. Gather students around a tree and identify the following parts of the tree: roots, trunk, branches, twigs and leaves. Circle around the tree and have students sit facing it. Observe the tree from the ground, slowly looking up the trunk, through the limbs and leaves until they see the sky. Ask students to describe what they see, hear, smell and feel. Brainstorm why the tree needs each of its parts.
2. Allow students to examine the tree from a variety of perspectives (facing near a leafy branch, hugging the trunk with their eyes closed, lying on their backs). Observe how the tree smells, if there are flowers, nuts or fruit on the tree, the colors found in and on the tree and identify if the tree is deciduous or evergreen.
3. Conduct a crayon rubbing of the bark or leaf from the tree. Discuss shapes and textures of the tree.
4. Brainstorm on how the tree gets its water and food.

Contemplate what happens to the tree if it does not receive enough water or receives too much. Identify the environments that Arkansas trees prefer?

5. Look for evidence that animals have been around or in the tree (squirrel nests, bird cavities and nests, insect borings or even large dens for bear).
6. Ask students to pretend they are animals living in the tree. What does the tree provide for those animals (safety from predators, shelter, food, temperature control).
7. Look at other trees (woody stems) and at some herbaceous plants (soft stems) in the area. Compare and contrast how these plants and trees differ from each other. How are they alike? How do woody trees and herbaceous plants differ? How are they alike? Slice a thin piece from a woody twig and one from a soft stemmed plant. Observe the samples under a hand lens or microscope (the slices may be stained with food coloring for a better look at different tissues). Notice differences in the tissue arrangement of the two plants. What is the benefit of having some plants that are soft and others that are woody? A Venn Diagram (below) can be used to compare the woody and herbaceous plants.



9. Collect some fallen bark, leaves and twigs to take back to the classroom for **Activity Three**.

### **Activity Three:** *Grow Tree*

#### **PROCEDURE:**

1. Divide class into small groups and give each group butcher paper, markers, bark, twigs and leaves. Have students draw the tree they observed using glue sticks or tape to attach bark, twigs and leaves to their drawings. Place drawings of animals or pictures cut from magazines on the paper trees. Use the illustrations to discuss how each animal uses the tree. Think about how many different kinds of animals can live in one tree and how this is possible.
2. Investigate what items in the classroom are made from trees. Ask students to identify goods at home that originate from trees. Afterwards, answer the following questions:

- How many of the items listed are produced in Arkansas?
- Are there any goods produced from the trees growing near their town?
- How do trees provide jobs for people? Identify if any students have parents, relatives or friends working in a tree-related business (timber companies, newspaper, furniture store).

- Investigate how different types of trees produce different products? Why is this variety necessary to animals and to people?
- Describe the impact on Arkansans if there were no more trees (consider how it would affect the people, animals, plants, soil and temperature of Arkansas.).

3. Invite an outside resource to speak to the class (representatives from the Arkansas Forestry Commission, the Ozark or Ouachita National Forests or a local paper company). Ask the guests to discuss their business or agency, why trees are important to them and how they use them in their business, how replacing trees used is important, the economic uses of trees, as well as the impacts of forestry on wildlife and biological diversity in Arkansas.

#### **Extensions:**

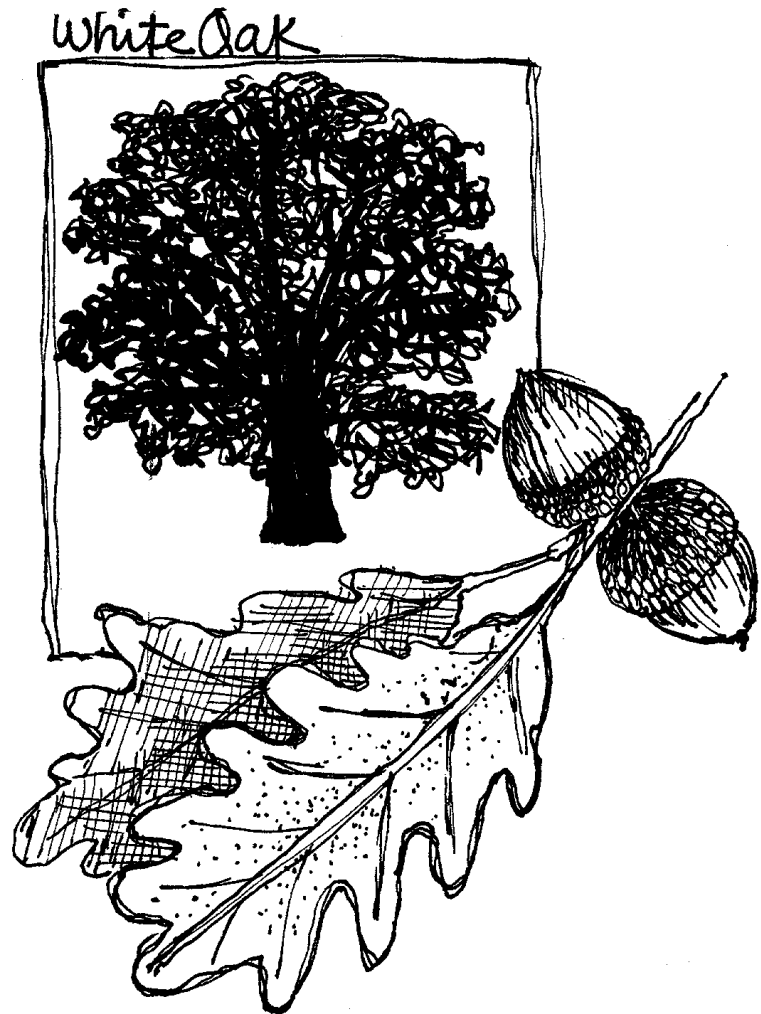
1. Arboretums, such as those at a nearby college, campus or state park. Invite an employee from the arboretum to visit your class and bring specimen.
2. Make a plant press and begin a permanent leaf collection for the classroom. After drying completely, specimens may be laminated and labeled with the name of the collector, the collection date and the location where the

specimen was gathered. As the collection grows, it can be used for sorting by shape, size, variation and number of types (or of each type)..

3. Ask students to draw their favorite Arkansas tree and tell the class a story connected to that particular tree. Compile a class book on favorite Arkansas trees and their stories.
4. Create a floor graph entitled, "Which Arkansas tree animal would you like to be?" Each student may choose an animal and draw a picture of it on paper. Allow students to take turns placing their pictures on the floor graph. After the graph is complete, ask the following questions:

- How many types of Arkansas animals live in your tree?
- Calculate which Arkansas animal the students chose repeatedly.
- Which Arkansas animal was chosen least often?
- Read and discuss *The Great Kapok Tree* by Lynne Cherry. Compare and contrast how the diversity of plants and animals in the Kapok environment compare with those of Arkansas trees
- Create stationary, note cards and decorations from recycled paper.

**BIOETHICS NOTE:** *Collect leaves in the fall before they change colors. Also remember that some areas, such as state and city parks, as well as arboretums, do not allow plant collecting of any kind.*



**Correlation to National Science Standards:**

Life Science, Earth and Space Science, Scientific Inquiry

**Correlation to Arkansas Frameworks:**

Science: (K-4) L.S.2.3., L.S.2.4., L.S.2.10.; (5-8) L.S.2.3., L.S.2.9.

Social Studies: 4.1.4.

Language Arts: L.S.V.1.1.1., L.S.V.1.8., W.1.1.

Math: D.S.P.1.1.E., D.S.P.2.2.