

Oklahoma Forests

Objective

Students will use their senses to observe and write about a tree, read about Oklahoma forest regions, locate the different forest regions on a map of Oklahoma, create map legends based on the reading, and create models of trees.

Background

Different kinds of trees grow differently and have different kinds of bark and different kinds of leaves or needles. In the forest, trees that drop their leaves all at once are called hardwood, or deciduous. Trees that lose their needles a few at a time, like pine trees, are called softwood, or evergreen. Oklahoma has both deciduous and evergreen trees.

Most of the state's forest land is deciduous and grows in the eastern part of the state. The **Central Hardwood Forest** starts in northeast Oklahoma and extends into Arkansas. Most of the trees are red oak and hickory trees. These trees are valuable for making things like furniture.

The post oaks and blackjack oaks growing in the east central part of Oklahoma make up an area called the **Cross Timbers**. These trees make good firewood.

Pine trees and mixed hardwoods grow in the **Southern Pine Forest** in the southeast corner of our state.

Pecan, walnut, cottonwood and willow are some of the trees that grow along rivers and creeks throughout Oklahoma. These trees are also found in the **Grasslands** of the western and north central parts of the state.

Materials

- cuttings from deciduous and evergreen trees, for examination and comparison
- drawing paper
- crayons or colored markers
- map pencils
- tempera paint
- straws cut in half
- small sponges
- water and garden soil in a bucket to make mud
- blue construction paper
- 1 to 1 1/2 squares pink tissue paper
- hot glue gun
- brown marker
- 4- to 6-foot butcher paper
- natural materials from trees (gathered by students)

Oklahoma Academic Standards

GRADE 2

Properties of Matter: 1-1. Life Science: 2-1, 4-1
Social Studies Content:
Geography: 1,2,4
Visual Art Expression: 1,2.
Connection: 4

GRADE 3

Life Science: 1-1; 3-1
Social Studies Content—
Geography: 1.A,B,C,E
Visual Art Expression: 1,2.
Connection: 4

Vocabulary

bark— the tough covering of a woody root or stem

deciduous— falling off (as at the end of a growing period or stage of development)

cross timbers— a strip of land in the US that runs from southeastern Kansas across Central Oklahoma to Central Texas. Made up of a mix of prairie, savanna, and woodland, it forms part of the boundary between the more heavily forested eastern country and the almost treeless Great Plains and also marks the western habitat limit of many mammals and insects.

evergreen— having leaves that remain green and functional through more than one growing season

forest— a dense growth of trees and underbrush covering a large area

grassland—land covered with herbs (as grasses and clover) rather than shrubs and trees

hardwood— a tree (as an oak or maple) that produces flowers and has usually broad leaves

softwood— a tree (as a pine or fir) that produces cones

Procedures

1. Read and discuss background and vocabulary
 - Bring cuttings from deciduous and evergreen trees for students to handle.
 - Use a Venn diagram on the board to help students recognize differences and similarities between deciduous and evergreen trees.
2. Take students outside to look at a tree.
 - Students will observe the tree closely, using all their senses except taste.
 - Return to the classroom. On blank sheets of paper, students will use colors and lines to express their observations.
 - Discuss what students observed. Students will describe the tree's texture, color, smell, etc. Write observations on the board. Students will consider how the tree came to grow where it did. Students will compare the tree with other trees on the playground and with trees in their yards at home.
3. Provide students with map pencils and copies of the map of Oklahoma Forest Regions included with this lesson.
 - Students will write the cardinal directions in the correct positions on their maps.
 - Read the background again slowly as a class.
 - As you read, students will write the different forest regions in the column on the left and list the different kinds of trees mentioned in the column at right.
 - Students will use the map pencils to color in the different forest regions and use the colors to make a map key.
 - Students will design symbols to designate the different kinds of trees. Students will draw the symbols on the maps to show which kinds of trees grow in which region.
4. Students will research to find the Oklahoma state tree and gather information to write a short paper about it. Is it deciduous or evergreen? Is it native to the state? Does it grow more in one part of the state than another? How did it come to be the state tree?
5. Provide tempera paint, straws cut in half, drops of water, small sponges and paper. Students will make Blow Art Trees, as follows:
 - Place 4-5 drops of tempera paint in a puddle an inch from the bottom of each student's paper.
 - Show students how to hold the straw parallel to the paper and gently blow the paint upward to create trees. Students will think about the tree they have explored and what a tree looks like. Add drops of water if the mixture doesn't blow easily.
 - Turn the paper to make branches.
 - After the paint has dried, students will use sponges to light press water color or thinned tempera paint onto the tree to give the impression of leaves.
6. Students will create models of a redbud tree, as follows:
 - Mix water and garden soil in a bucket to make mud.

- Dip your hand and wrist into the mud.
- Carefully place your hand on blue construction paper, spreading fingers to create prints of branches. The wrist print will serve as the tree trunk.
- Allow the wrist print to dry.
- Create blossoms by twisting 1 to 1 1/2-inch squares of pink tissue paper around a pencil eraser and using the pencil to gently press the squares onto dots of glue placed on the blue construction paper near the “branches.” The tissue should come off the eraser easily. Repeat until the tree is full of blossoms. It should look similar to an Oklahoma redbud in bloom.
- If there are missing sections of the “tree” or if students want more detail, they can add lines with a brown felt tip marker.

7. Students will build a Classroom Tree, as follows:

- Draw the outline of a tree, 4-6 feet high, on butcher paper.
- Hang the tree in your classroom or in the hallway.
- Students will gather and bring natural materials that can be found on a tree (chunks of bark, nuts, leaves, twigs, bird nests, knot holes, etc.)
- Use a hot glue gun to fill in the outline with the materials students have brought. Students will help by placing the materials in the correct place on the tree. The project can be ongoing as students find more materials to add.

Extra Reading

- Berger, Carin, *The Little Yellow Leaf*, Greenwillow, 2008.
 Leavell, Chuck, and Nicholas Cravotta, *The Tree Farmer*, VSP, 2005.
 Marshall, Pam, *From Tree to Paper*, Lerner, 2002.
 Muldrow, Diane, and Bob Staake, *We Planted a Tree*, Golden, 2010.
 Pfeffer, Wendy, and Robin Brickman, *A Log's Life*, Aladdin, 2007.
 Tagliaferro, Linda, *The Life Cycle of an Oak Tree (Plant Life Cycles)*, Capstone, 2007.

Ag Careers: Geographer

Geographers study the earth and its land, features, and inhabitants. They also examine phenomena such as political or cultural structures as they relate to geography. They study the physical and human geographic characteristics of a region, ranging in scale from local to global.

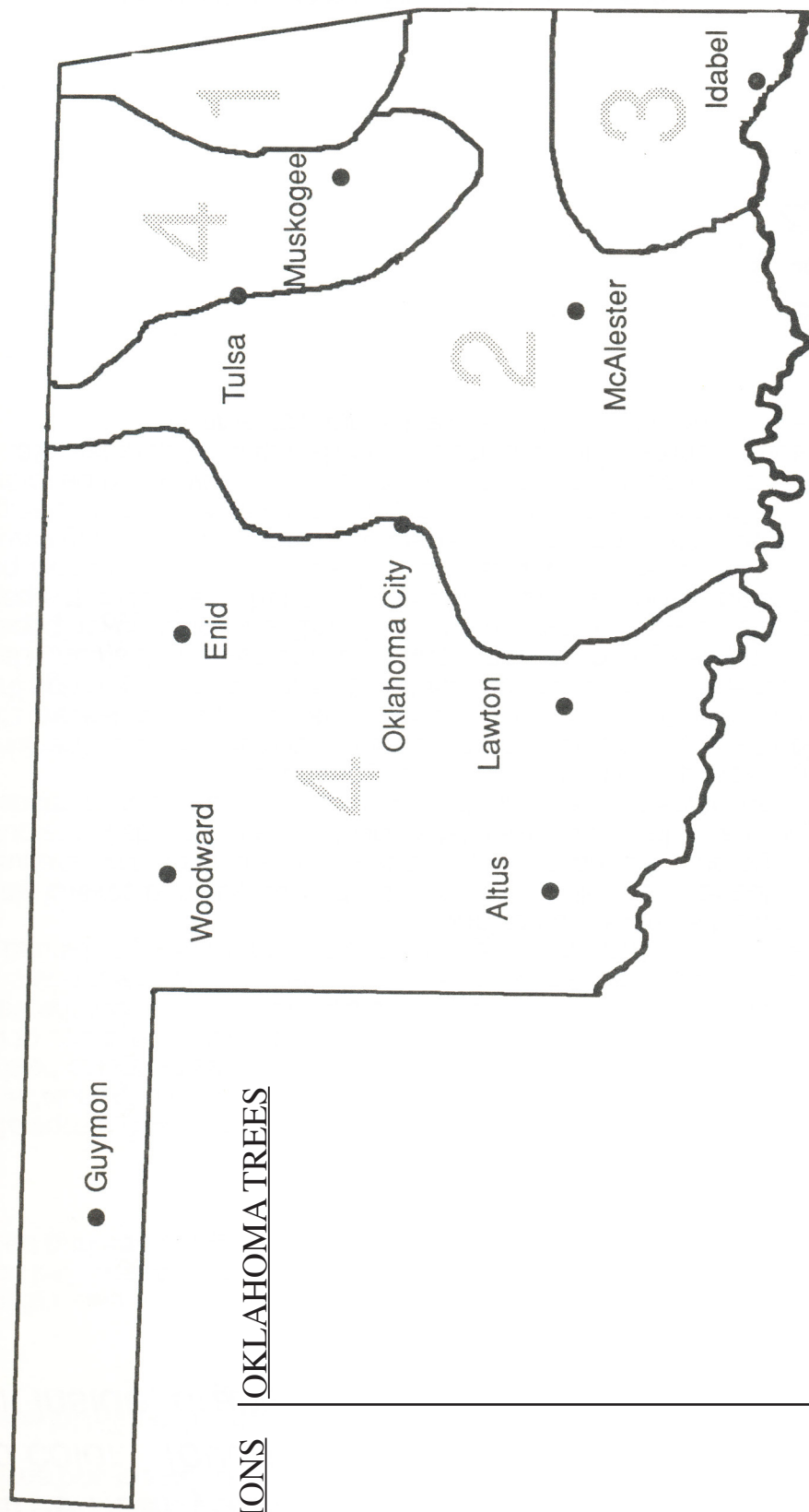
About half of all geographers are employed by the federal government. Most work full time during regular business hours. Many geographers do fieldwork, which may include travel to foreign countries or remote locations.

Geographers need at least a master's degree for most positions outside the federal government. Those with a bachelor's degree may qualify for some entry-level jobs in the federal government, but many of these jobs often require geography experience or training in geographic information systems (GIS).

Name _____

Oklahoma Forest Regions

As your teacher reads the information about Oklahoma forests, write the names of the regions in the space below and list the names of the trees she mentions.



FOREST REGIONS

- 1.
- 2.
- 3.
- 4.

OKLAHOMA TREES

Oklahoma Ag in the Classroom is a program of the Oklahoma Cooperative Extension Service, the Oklahoma Department of Agriculture, Food and Forestry and the Oklahoma State Department of Education.