



WHAT IS A FOREST?

Time: 1 1/2 Hour

OBJECTIVE: To understand the concept of forest diversity.

MATERIALS: Art supplies such as construction paper, glue, and markers
Handout (page 3)

BACKGROUND:

North Carolina is a biologically diverse environment in which great natural beauty is created by the numerous species of plants and animals. This diversity extends into our forests where a variety of trees, plants, and animals interrelate and affect one another.

Our forests differ noticeably in size, composition, and age of the trees found in the area. Generally, North Carolina's forests are in stages of transition from seedlings to mature trees. Tree age goes largely unnoticed by the forest visitor, but to a forester, forest maturity is an important concept.

Forests can be categorized into specific types, such as hardwood or conifer. North Carolina has more species of hardwoods than any other state. These species include oak, hickory, maple, ash, poplar, sweetgum, and blackgum. Our mountains include these hardwood species plus Fraser fir, yellow birch, mountain maple, mountain ash and red spruce which are also found as far away as Canada. Along with trees, wildflowers, shrubs, vines, and wildlife live in mountain forests. Pasture and cropland often border forested land.

Coastal areas may have forests with loblolly, longleaf pine, cypress, and Atlantic white cedar mixed with large shrubs and hardwoods such as sugarberry, hackberry, tupelo and oaks including water, willow, live, and cherry bark; or they may have wetlands teeming with ducks, geese, swans, snakes, turtles, alligators, and the endangered red wolf and Red-cockaded woodpecker.

The Piedmont, too, may have forests with a mix of pine trees and hardwoods, but wildlife is often limited because of the proximity of large population centers. However, hawks have been spotted in most of our cities, and eagles are found only a few minutes from Raleigh. Raccoons and beaver invade urban ponds, and deer and bear occasionally wander into towns.

The acreage of old forests may be shrinking, but there are many newer areas of growth and protected areas such as parks and greenways. While the typical visitor does not consider parks or greenways "forest,"



BRANCHING OUT: The NC Forest Stewardship Activity Guide

these areas are important environmentally and play an important part of North Carolina's forest diversity.

BEFORE THE ACTIVITY:

Have all art supplies available

Have hand out (page 3) prepared for distribution

LEAD-IN:

We're going to explore the idea of forest diversity which includes not only the number of different species within a given area but also the number and extent of forest types in a region.

Before this exploration, let's begin by considering some questions.

Does nature take care of the forest?

As people, what is our responsibility to the forest?

How do we interrelate with the land we use?

How do we interrelate with land where we have no access?

As an individual, what relationship can you have with a forest?

Many people believe that nature takes care of a forest and that people should adopt a "hands-off" position. Do you agree? Also, people living in an urban area with little natural forest often never think about North Carolina's forest. Should they?

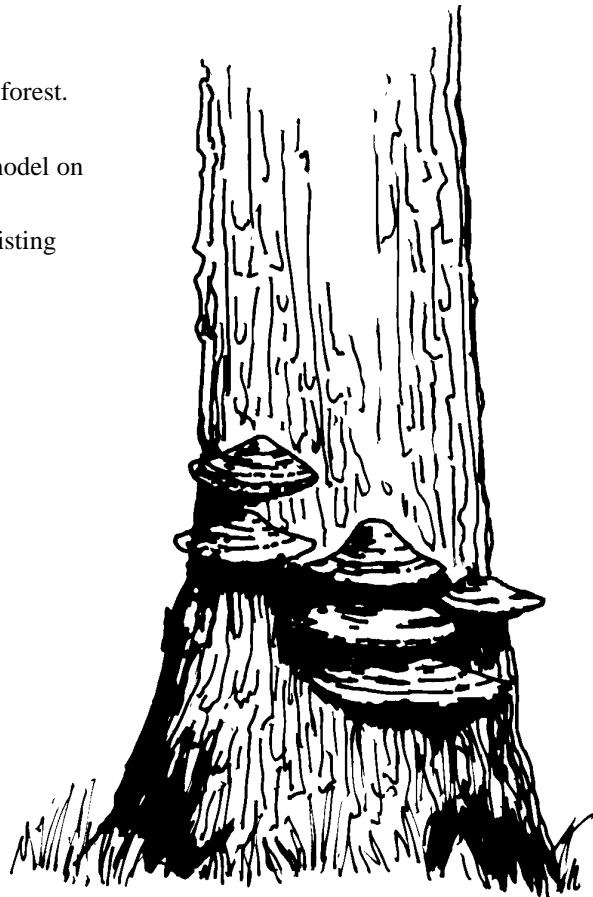
(After building the forests and discussing the composition, these questions could be re-explored. How have responses and perceptions changed, if at all?)

ACTIVITY:

1. Ask individual students to list what is contained within a forest.
2. Divide class into groups of three or four students.
3. Instruct students that they may make a forest ecosystem model on paper or in a three dimensional diorama.
4. Distribute major forest types of North Carolina (Page 3) listing different forest types and their composition.
5. Ask each group to construct a forest.
6. Have each group list what comprises their forest.
7. Discuss the forest models.

BRANCHING OUT:

1. Why do you think forest diversity is important?
2. How would season, years, and development affect the forest you modeled?
3. How would you make a simple model explaining the input/output of water or sunlight?





A. Oak Hickory

- | | | |
|---|--|--|
| Dominant trees
white oak
northern red oak
southern red oak
American beech
mockernut hickory
pignut hickory
red maple
sweetgum
blackgum
yellow-poplar | Understory
flowering dogwood
sourwood
American holly
redbud
striped maple
American hornbeam
hophornbeam
umbrella magnolia
serviceberry | Shrubs
rhododendron
spicebush
witch-hazel
pawpaw
viburnum
strawberry bush
lambkill
blueberry
huckleberry |
|---|--|--|

B. Loblolly-Shortleaf Pine

- | | | |
|---|---|---|
| Dominant trees
loblolly pine
shortleaf pine
Virginia pine | Understory
blackjack oak
post oak
sweetgum
mockernut hickory
flowering dogwood
blackgum
white oak
redcedar
black oak
persimmon | Shrubs
wax myrtle
gallberry
viburnum
blueberry
greenbrier
blackberry
honeysuckle
hawthorn
smooth sumac
beautyberry |
|---|---|---|

C. Longleaf Pine

- | | | |
|--|---|---|
| Dominant trees
longleaf pine
pond pine
loblolly pine
shortleaf pine | Understory
turkey oak
blackjack oak
sand post oak
dwarf live oak | Shrubs
yaupon
gallberry
fetterbush
blueberry |
|--|---|---|

D. Oak-Gum-Cypress

- | | | |
|---|---|---|
| Dominant trees
tupelo
baldcypress
water oak
willow oak
cherrybark oak
live oak | Understory
water hickory
Nutall oak
sugarberry
hackberry | Shrubs
poison ivy
trumpet creeper
yaupon
liti
possumhaw
giant cane |
|---|---|---|

Major Forest Types of North Carolina