

SAMPLE ACTIVITY

from

Learning through Legacy

Alabama's Environmental Education Guide

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OBJECTIVES:

The student will be able to:

1. Define habitat.
2. Identify the things that plants and animals need to survive.
3. Understand the concept of endangered and extinct animals.
4. Identify several endangered species.
5. Identify the main reasons species become endangered.

BACKGROUND:

Since the year 1600, about 300 species of wildlife have become extinct either directly or indirectly as a result of human activities. In 1985, 254 plants and animals were listed as being endangered. In 2000 there were 1,244. Loss of habitat is the biggest cause. Other major causes of endangerment include change of habitat, illegal or unregulated use of the plant or animal, disruption of migration routes, pollution, and natural causes.

Within their habitat, plants and animals must find everything they need to live. All living things need food, water, space, and shelter as well as sunlight and air. Some species of animals are endangered because their habitat is disappearing or changing.

VOCABULARY:

endangered - in danger of extinction

extinct - complete disappearance of a species

habitat - the place where plants and animals live

ADVANCE PREPARATION:

1. Review the list of endangered plants and animals.
2. Write to or visit the website of the U.S. Department of the Interior (www.doi.gov) for a list on the national level.
3. Gather required materials.

PROCEDURE:

Setting the Stage I

Illustrate the meaning of endangered and extinct by playing the game “Going, Going, Gone.” Choose a helper and have the remaining students form a circle. Each student in the circle represents an imaginary animal group that can be named. The helper is a person. The helper goes around the circle tapping each student on the head repeating “going, going, gone.” Those tapped on “gone” leave the circle and sit out. When about one -quarter are left, stop and explain that the group is now endangered. Continue to play until one is left; then inform the students that their species is now extinct.

Setting the Stage II

Ask each student to draw a picture of where he or she lives. Ask the students to include pictures in their drawing of the things they need to live where they do, for example, a place to cook food, a place to sleep. Discuss with students what they drew and have them point out the things they need to live. Show pictures of different types of animal habitats and discuss why different animals have different habitat requirements.

Grades:

K-2

Subjects:

Science, Social Studies, Art, Language Arts

Time Needed:

30-45 minutes

Materials:

pictures of endangered animals

endangered species lists

hard boiled egg

glass bowl

oil

red and blue food coloring

large sheets of paper for each group

crayons or markers

Farewell to Shady Glade by Bill Peet

drawing paper

pictures of different types of habitats

Activities I

1. Discuss the main reasons animals and plants are endangered. Discuss and show pictures of some animals that are endangered.
2. Conduct this experiment to show how man has affected some animal habitats. Fill a small glass bowl half full of vegetable oil. Then create an “oil spill” by stirring in a generous amount of purple food coloring (made by mixing red and blue food coloring). To demonstrate the harmful effects of the “oil,” place a hard-boiled egg in the mixture. Spoon repeatedly the mixture over the egg; then let the egg float for thirty minutes. Next remove the egg and let it dry. Have students discuss or record their observations of the egg. Then peel the shell from the egg. Share additional observations. Help students understand that oils and other dangerous poisons can be life-threatening to the animal inside.

Activities II

1. Show pictures of where some animals live.
2. Talk about the things every animal needs in its home. Talk about the idea that home is bigger than a house. In some ways, it’s like a neighborhood. For animals, that neighborhood where all survival needs are met, is a habitat.
3. Tell the students that some animals are in trouble because their habitat is being changed.
4. Read *Farewell to Shady Glade* by Bill Peet and discuss that the animals in the story needed to survive.

Follow-Up I

While the “oil spill” experiment is proceeding, divide the class into groups. Challenge each group to create a mural that features three or more endangered animals. Provide the students with pictures of different endangered animals.

Follow-Up II

Divide the class into groups. Provide each group with a large piece of white paper and crayons or markers. Have the students talk about and then illustrate suggestions to help animals in trouble. Have each group share its ideas with the class.

EXTENSIONS:

1. Have students research animals in the area that are endangered and explore reasons they are endangered.
2. Have each student choose an endangered animal to study, and make a shoe box diorama to illustrate what was learned. Have each make a suitable habitat for the animal.
3. Prepare a word search puzzle for the class using Alabama Endangered Species.
4. Have each student make an endangered animal picture dictionary.
5. Go outside and look for animal homes. Be sure not to bother the animals in the home. (See *Life Under a Log*, Learning Through (K-2))
6. Draw animal homes. Compare them to places where people live.
7. Take a colored ball of yarn. Each student is labeled food, water, shelter, and space. Connect the food, water, shelter, and space by having each one take hold of part of one long string of yarn. The students all connected represent a suitable arrangement of food, water, shelter, and space to meet an animal’s needs.
8. Geography Connections: (1) Show on an Alabama map where some of the endangered species live. (2) Make a timeline of the disappearance of species.

RESOURCES:

- Christensen, C. (1992, April/May). *The primary mailbox magazine*, pp.3-4.
- Peet, B. (1992). *Farewell to shady glade*. Boston, MA: Houghton Mifflin.
- Western Regional Environmental Education Council. (1986). *Project WILD - elementary activity guide*.
- U.S. Fish and Wildlife Service, (1999). *Threatened and endangered species of Alabama: A guide to assist with forestry activities*.

**U.S. Fish and Wildlife Service
Division of Endangered Species
Listed Species Under Fish and Wildlife Service Jurisdiction
State of Alabama as of 12/31/00**

Animals -- 88

Status Listing

T = Threatened
E = Endangered

- E Acornshell, southern (*Epioblasma othcaloogensis*)
- T Alligator, American (*Alligator mississippiensis*)
- T Bankclimber, purple (*Elliptoideus sloatianus*)
- E Bat, gray (*Myotis grisescens*)
- E Bat, Indiana (*Myotis sodalis*)
- E Blossom, turgid (*Epioblasma turgidula*)
- E Blossom, yellow (*Epioblasma florentina florentina*)
- E Campeloma, slender (*Campeloma decampi*)
- E Catspaw (*Epioblasma obliquata obliquata*)
- E Cavefish, Alabama (*Speoplatyrhinus poulsoni*)
- T Chub, spotfin Entire (*Cyprinella monacha*)
- E Clubshell, black (*Pleurobema curtum*)
- E Clubshell, ovate (*Pleurobema perovatum*)
- E Clubshell, southern (*Pleurobema decisum*)
- E Combshell, Cumberlandian (*Epioblasma brevidens*)
- E Combshell, southern (*Epioblasma penita*)
- E Combshell, upland (*Epioblasma metastrata*)
- E Darter, boulder (*Etheostoma wapiti*)
- T Darter, goldline (*Percina aurolineata*)
- T Darter, slackwater (*Etheostoma boschungii*)
- T Darter, snail (*Percina tanasi*)
- E Darter, watercress (*Etheostoma nuchale*)
- T Eagle, bald (lower 48 States) (*Haliaeetus leucocephalus*)
- T Elimia, lacy (*Elimia crenatella*)
- E Fanshell (*Cyprogenia stegaria*)
- T Heelsplitter, Alabama (*Potamilus inflatus*)
- E Kidneyshell, triangular (*Ptychobranthus greeni*)
- E Lampmussel, Alabama (*Lampsilis virescens*)
- E Lilliput, pale (*Toxolasma cylindrellus*)
- E Lioplax, cylindrical (*Lioplax cyclostomaformis*)
- E Manatee, West Indian (*Trichechus manatus*)
- T Moccasinshell, Alabama (*Medionidus acutissimus*)
- E Moccasinshell, Coosa (*Medionidus parvulus*)
- E Moccasinshell, Gulf (*Medionidus penicillatus*)
- E Monkeyface, Cumberland (*Quadrula intermedia*)
- E Mouse, Alabama beach (*Peromyscus polionotus ammobates*)
- E Mouse, Perdido Key beach (*Peromyscus polionotus trissyllepsis*)
- T Mucket, orangenacre (*Lampsilis perovalis*)
- E Mucket, pink (*Lampsilis abrupta*)
- E Mussel, oyster (*Epioblasma capsaeformis*)
- E Pearlymussel, cracking (*Hemistena lata*)
- E Pearlymussel, dromedary (*Dromus dromas*)
- E Pearlymussel, littlewing (*Pegias fabula*)
- E Pearlymussel, white wartyback (*Plethobasus cicatricosus*)
- E Pebblesnail, flat (*Lepyrium showalteri*)
- E Pigtoe, dark (*Pleurobema furvum*)
- E Pigtoe, finerayed (*Fusconaia cuneolus*)
- E Pigtoe, flat (*Pleurobema marshalli*)
- E Pigtoe, heavy (*Pleurobema taitianum*)
- E Pigtoe, oval (*Pleurobema pyriforme*)
- E Pigtoe, rough (*Pleurobema plenum*)

E Pigtoe, shiny (*Fusconaia cor*)
 E Pigtoe, southern (*Pleurobema georgianum*)
 E Pimpleback, orangefoot (*Plethobasus cooperianus*)
 T Plover, piping (except Great Lakes watershed) (*Charadrius melodus*)
 T Pocketbook, finelined (*Lampsilis altilis*)
 E Pocketbook, shinyrayed (*Lampsilis subangulata*)
 E Ring pink (*Obovaria retusa*)
 E Riversnail, Anthony's (*Athearnia anthonyi*)
 T Rocksnail, painted (*Leptoxis taeniata*)
 E Rocksnail, plicate (*Leptoxis plicata*)
 T Rocksnail, round (*Leptoxis ampla*)
 T Salamander, flatwoods (*Ambystoma cingulatum*)
 T Salamander, Red Hills (*Phaeognathus hubrichti*)
 T Sculpin, pygmy (*Cottus pygmaeus*)
 T Sea turtle, green (except where endangered) (*Chelonia mydas*)
 E Sea turtle, hawksbill (*Eretmochelys imbricata*)
 E Sea turtle, Kemp's ridley (*Lepidochelys kempii*)
 E Sea turtle, leatherback (*Dermochelys coriacea*)
 T Sea turtle, loggerhead (*Caretta caretta*)
 T Shiner, blue (*Cyprinella caerulea*)
 E Shiner, Cahaba (*Notropis cahabae*)
 E Shiner, palezone (*Notropis albizonatus*)
 E Shrimp, Alabama cave (*Palaemonias alabamae*)
 T Slabshell, Chipola (*Elliptio chipolaensis*)
 E Snail, armored (*Pyrgulopsis pachyta*)
 E Snail, tulotoma (*Tulotoma magnifica*)
 T Snake, eastern indigo (*Drymarchon corais couperi*)
 E Stirrupshell (*Quadrula stapes*)
 E Stork, wood (AL, FL, GA, SC) (*Mycteria americana*)
 E Sturgeon, Alabama (*Scaphirhynchus suttkusi*)
 T Sturgeon, Gulf (*Acipenser oxyrinchus desotoi*)
 T Tortoise, gopher (W of of Mobile/Tombigbee Rs.) (*Gopherus polyphemus*)
 E Turtle, Alabama red-belly (*Pseudemys alabamensis*)
 T Turtle, flattened musk (species range clarified) (*Sternotherus depressus*)
 E Whale, finback (*Balaenoptera physalus*)
 E Whale, humpback (*Megaptera novaeangliae*)
 E Woodpecker, red-cockaded (*Picoides borealis*)

Plants -- 19

Status Listing

T Amphianthus, little (*Amphianthus pusillus*)
 T Potato-bean, Price's (*Apios priceana*)
 T Fern, American hart's-tongue (*Asplenium scolopendrium americanum*)
 E Leather flower, Morefield's (*Clematis morefieldii*)
 E Leather flower, Alabama (*Clematis socialis*)
 E Prairie-clover, leafy (*Dalea foliosa*)
 T Sunflower, Eggert's (*Helianthus eggertii*)
 T Bladderpod, lyrate (*Lesquerella lyrata*)
 E Pondberry (*Lindera melissifolia*)
 T Button, Mohr's Barbara (*Marshallia mohrii*)
 E Harperella (*Ptilimnium nodosum*)
 T Water-plantain, Kral's (*Sagittaria secundifolia*)
 E Pitcher-plant, green (*Sarracenia oreophila*)
 E Pitcher-plant, Alabama canebrake (*Sarracenia rubra alabamensis*)
 E Chaffseed, American (*Schwalbea americana*)
 E Pinkroot, gentian (*Spigelia gentianoides*)
 T Fern, Alabama streak-sorus (*Thelypteris pilosa alabamensis*)
 E Trillium, relict (*Trillium reliquum*)
 E Grass, Tennessee yellow-eyed (*Xyris tennesseensis*)