

# ***North Carolina Zoological Park***

## **Scout Badge Program**

The NC Zoo does not currently have a badge program; however, the following activities can be completed by troops on their own to enhance a trip to the zoo. The zoo does have a “Zoo Patch: that is available for purchase online or at zoo gift shops.

This is a packet of information and activities *for North Carolina* scout troops planning to visit the

North Carolina Zoological Park  
Asheboro, North Carolina

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***(Effective May 6, 2009) Rev. 05/09***

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The Zoo is a program of the  
Department of Environment and Natural Resources,  
State of North Carolina

## North Carolina Zoological Park

We are pleased that you are bringing your Scout troop to the North Carolina Zoological Park. We hope this booklet helps you plan a successful field trip.

Enter the world of the wild at the North Carolina Zoo. This world-class facility is home to more than 1000 animals from Africa and North America.

During your visit, you can stroll through a rainforest of tropical birds and plants, gaze across a prairie filled with bison and elk, and sit face-to-face with chimpanzees in the BB&T Kitera Forest Exhibit.

Distinguished through its conservation and education efforts, the NC Zoo encourages you to observe plants and animals together in a natural habitat as they would be found in the wild. This can foster exciting educational experiences that go well beyond naming species to interpreting behavior, understanding ecological relationships, and promoting an awareness of the vital connections between humans and the environment.

**Location** The North Carolina Zoo is located in the geographic center of the state, off highway 159, six miles southeast of Asheboro.

**Hours** April 1 - October 31 9am to 5pm  
November 1 - March 31 9am to 4pm  
*The Zoo is closed Christmas Day & on occasional severe weather days.*

**Admission** Adults \$10.00  
Children 2-12 \$6.00  
Senior citizens age 62+ \$6.00  
Children under 2 years of age are admitted free.

**Information** Write or call the North Carolina Zoological Park

4401 Zoo Parkway  
Asheboro, North Carolina 27205  
General Information: 1.800.488.0444  
Group Registration: 336.879.7700  
Website: [www.nczoo.org](http://www.nczoo.org)

## HELPFUL INFORMATION

### Food

**Picnic Areas** are located near the 'Africa' and North America' entrances.

**Restaurants** provide you with deli and grilled sandwiches, pizzas, salads, cookies, and hot and cold beverages.

**Crocodile Cafe** - *Closed December - February*

Relax at this African-style bistro in the colorful Wachovia Akiba Market

**Cottonwood Cafe** - *Open Park Hours*

Located in North America Plaza and ready to serve sandwiches, fries and drinks

**Junction Restaurant** - *Open Park Hours*

In the heart of the Park at Junction Plaza with lots of room to sit inside or out

**Snack Bars** serve hotdogs, nachos, cookies, ice cream, and hot and cold beverages.

**Carolina Wayside** -

Across from Touch and Learn Center, North America Open closing dates may vary)  
Memorial Day to Labor Day weekend (opening &

**Prairie Outpost** -

Near Prairie exhibit, North America closing dates may vary)  
Open Memorial Day to Labor Day weekend (opening &

**Serengeti** -

Lower level African Pavilion, Africa dates may vary)  
Open early summer to November 30 (opening & closing

**Ice Cream Parlor** -

Junction Plaza  
Open Memorial Day to Labor Day weekend

**Restrooms** are located near the Africa **Picnic Area**; behind the **Safari Shop** (just inside the African entrance); across the pathway from the **Lion Habitat** in Africa, in the lower level of the **African Pavilion**, in the **Junction Plaza**, at **Prairie Outpost**, at **Carolina Wayside** and in the **North America Plaza**.

**Gift Shops** Several gift shops are located throughout the Zoo, offering a variety of souvenirs and gift ideas.

**Safari Shop, Leopard Spot** - Located inside Wachovia Akiba Market and both shops feature unique African-themed gifts and souvenirs

**Uwharrie Purchase, Wolf Bay Traders** - Both located in North America Plaza and featuring North American-themed gifts and souvenirs

**Junction Outfitters** - Located in Junction Plaza

**See the Zoo Walking tour** ~ Visitors can enjoy all the exhibits by walking along the pathways to each of the habitats,  
**Tram** ~ A tram is available, free of charge, for people wanting transportation between exhibits. You must exit the tram in order to see the animals. Please be aware that during busy seasons tram lines may be long. **Wheelchairs** (standard-free) and **motorized wheelchairs**, as well as **strollers** maybe rented @ the **Safari Shop** and **Uwharrie Purchase** gift shops. Tram accommodations are available for wheelchairs & strollers.

**Concept** Participation instead of mere observation is the whole idea behind the NC Zoo. There are no bars to separate you from our outside animals ~ instead we use open land and hidden moats. In the Aviary and Sonora Desert birds fly freely. In the African Pavilion many plexi-glass barriers allow for maximum viewing of the animals in their habitats.

**Hotels/ Camping** Several hotels and campgrounds are located in the area. Call the Asheboro Chamber of Commerce at 336.626.2626 for more details. **The zoo does not provide overnight camping.**

## SCOUT INFORMATION

It is important to prepare your Scouts and yourself before you visit the Zoo. Assign members of your troop a specific topic such as food webs, animal or plant adaptations, body coverings, locomotion and feet, ways seeds travel, etc., before your visit. As they conduct their research, Scouts will learn more than just the name of a plant or animal. This will enable troop members to have a more positive Zoo experience.

Please inform your Scouts that comfortable shoes and leisure clothing are suitable for your visit. Remember that many exhibits are outdoors. Because the Zoo covers many acres, plan approximately five hours for your visit.

An appropriate number of adult chaperones will make your trip more enjoyable. We suggest it takes 10 Scouts to look after 1 adult! The principle leader of each group of Scouts is responsible for the group's behavior and should remain with the Scouts while in the Park.

Reduced admission to the NC Zoo is available for Scouts who are working on their Zoo badge. To make arrangements for scout admission of \$4.00 and chaperone admission of \$8.00, leaders should fill out the enclosed "Scout Registration Form" and mail to:

North Carolina Zoological Park  
Marketing Division  
4401 Zoo Parkway  
Asheboro, North Carolina 27205

Or call:

336.879.7700  
800.488.0444 x7700

The Zoo will then send you a confirmation, which you must bring to the Zoo on the day of your visit.

**THE NC ZOO SCOUT PATCH:** This is a patch available to Scouts. Scout Leaders can choose to purchase "Zoo Scout Patches" from one of the Zoo's gift shops. These patches can be used as incentive for completing some of the activities or as a reward for taking part in the Zoo experience. Upon completion, badges can be ordered directly from:

North Carolina Zoological Society  
4403 Zoo Parkway  
Asheboro, North Carolina 27205  
336.879.7265 or 336.879.7267

Please send \$1.50 for each badge. This includes postage and handling.

Badges may also be purchased during your visit to the Zoo at the **Leopard Spot Gift Shop** (Africa entrance) or **Wolf Bay Traders** (North America entrance).

*PLEASE FEEL FREE TO MAKE COPIES OF ANY OF  
THE MATERIALS IN THIS PACKET.*

# " A ZOO-TO-DO "

## *Activities for Younger Scouts*

Daisies, Brownies, Bobcats, Wolves Bears, Webloes, Arrows of Light

*The following are some things your troop can do before or after your trip to the Zoo. Scouts should complete at least 5 activities from the list before their Zoo visit, including 3 from those that are starred.*

- 1.\* Take a nature walk around your school, church, or meeting place. Use appropriate field guides to identify and list all the different plants and animals you see.
- 2.\* Build and stock an aquarium or terrarium.
3. Make paintings or sculptures of animals you will see or have seen at the Zoo.
4. \*Make a bulletin board to educate others of the need for conservation and a clean environment.
5. Tell a story about your pet or a pet you would like to own. Tell about the proper way to care for a pet.
- 6.\* Write and produce a play or puppet show about how children should act at the Zoo. You might present this to another troop that is planning a Zoo trip.
- 7.\* Plant a tree, shrub, or flowers. Show others that we can beautify our environment.
- 8.\* Plan and conduct a recycling project to clean up your community. Collect aluminum cans, bottles, or newspapers and sell them to raise money for an ecology project, such as buying a tree for your school.
9. Find out what is meant by "endangered species." Why are some animals and plants endangered? How might we prevent others from becoming endangered?
10. Learn something new about the animals you will see during your visit to the Zoo.
11. Make a list of new words you heard or saw at the Zoo. Look them up to find out what they mean. 12. Tell your parents and friends about your visit to the Zoo.
- 13.\* Discuss the purpose of zoos. What do you think is the most important thing zoos can do for wildlife? Share your ideas with other Scouts.
14. Discuss some differences between "wild" and "tame" animals. Name some of each. List some of each that you saw at the Zoo.
15. Find at least 5 examples of animals in either music, art or literature. Create your own song, picture or story about something in nature. Share with your troop.
16. \*Research ways humans are destroying the homes of plants and animals. What do you think can be done about the problems? How can zoos help? How can you help?
17. Name items humans discard that are harmful to animals (i.e. plastic rings, balloons, glass). How can this be prevented?

18. Make a list of several different types of shoes people wear (tennis shoes, boots, goulashes, flippers, skates, ballet, etc.) and discuss when and why a person might wear each one. Obviously, animals don't wear shoes. Instead, different animals have different types of feet depending on where and how they live. During your Zoo visit, notice the different types of feet of the animals. How do you think special feet help animals survive?
19. Many animals have colors and/or patterns on their fur, feathers, scales, and skin that cause them to blend in with their surroundings. This adaptation is called camouflage. Discuss some ways camouflage can help animals survive. Look for animals during your Zoo visit that are camouflaged. Later, look for animals in your own backyard or neighborhood that are camouflaged. Design a butterfly that blends in with some area in your home. Place the butterfly in that area and see how long it goes unnoticed by others.
20. During your Zoo visit, look for similarities and differences in ways animals move, eat and protect themselves. Choose one or more of the animals to imitate. Can someone guess which animal you are?
21. As you tour the Aviary, notice the different shapes of beaks on the birds. How many different shapes can you find? Why do you think different birds have different beaks? Why do you think different birds have different ways of gathering food? What might happen if all birds had the same type of beak and ate the same type of food?
22. Can you find any animals at the Zoo that have thumbs? Watch the animals closely. How do they use their thumbs? Hold up one of your hands. Touch your thumb to the tip of each finger on that hand. This ability to swing your thumb across the palm of your hand means that your thumb is opposable.  
What might it be like to live without thumbs? Try to write your name or tie your shoe without using your thumb. What are some things that some animals with thumbs can do, that others can't?

Scout's signature \_\_\_\_\_

Leader's signature \_\_\_\_\_

Date Badge completed \_\_\_\_\_

*The following are some things your troop can do at the Zoo.  
(Older Scouts might enjoy some of these ideas, too.)*

1. Find some big animals at the Zoo.
2. Find some small animals at the Zoo.
3. Find an animal that crawls.
4. Find an animal at the Zoo that walks or runs.
5. Find a bird at the Zoo that can fly.
6. Find a large bird at the Zoo that cannot fly.
7. Find the tallest animal at the Zoo.
8. Many animals at the Zoo have colors and markings that can help them hide from enemies. This is protective coloration or camouflage. Look for animals that have stripes, spots, one color.
9. Sometime during your visit, go down to the lake and observe the waterfowl for a few minutes. Notice how their eyes are placed on the sides of their heads, not in the front. This helps them see All around so they won't become easy meals for predators. Look at their webbed feet. Geese need webbed feet for taking off and landing. Can you think of other ways webbed feet are important to geese and ducks?
10. Compare/contrast the lions and cougars.
11. Choose one animal to watch for a few minutes. Write down all the things it does.
12. Choose another animal and notice how it looks. Does it have feathers, scales, hair, or skin? How many colors? Stripes? Spots? Wings? How many legs? Does it have hooves, paws, hands, feet, fins or none of these?
13. Look for baby animals. Is the young animal the same color as its parents? If not, try to think of a reason for the difference.
14. Choose several animals and think about ways they might defend themselves or escape from an enemy. (Example: teeth, claws, running, flying, etc.)
15. Identify the things that all animals need in order to survive. Are these things present in the habitats of the animals at the Zoo? Choose 3 habitats to observe. How can you tell if the needs of the animals are being met?
16. Make a list of questions about zoo animals to take along with you on your visit. Search for the answers by reading signs and asking questions.
17. See how much you can learn just by watching an animal at the Zoo. What do you think the climate is like where the animal lives in the wild? What do you think the animal eats? How do you think it protects itself? Read about the animal. Were your predictions correct?

# "THE ZOO AND YOU"

## *Activities for Older Scouts*

*Cadets, Juniors, Seniors, Tenderfoot*

*Second Class, First Class, Star, Life, Eagle*

*Scouts should complete at least 7 activities before their Zoo visit, including the 3 that are starred.*

1. Plan a trip to the NC Zoo. How will you get there?  
How much money will you need? What type of clothing will you wear?  
Do you plan to take a meal with you? If so, what kind of food?
2. \*Complete the *Wildlife Observations* lesson for students which can be found at the back of the "Scout Badge Program" booklet.
3. Have a discussion on cages vs. natural habitat exhibits. It is the responsibility of the Zoo to take care of its animals and to meet their needs. All animals require food, shelter, space, water, and sometimes Companionship. It is important to the health of the animal that these needs are met. Remember that a good home for a person is not usually a good habitat for an animal. Each species has different living requirements.
4. \*Complete a project to benefit the environment. Feel free to be creative! Here are a few suggestions, but you are encouraged to come up with ideas of your own. (plant a wildlife attraction garden, create a bird feeder station, plant trees, adopt a stream, plan and conduct a recycling project).
5. Trace the history of zoos and their purposes from their beginnings to present day.
6. Design your own zoo and then construct it of clay, cardboard, etc. List the animals in your zoo and why you selected these animals. (This could be a troop activity with each Scout designing a certain area.)
7. \*Make a list of endangered animals and plants. Why are some animals and plants endangered? How many endangered species can you observe at the NC Zoo? What are some things you can do to help make the Earth a healthier place for all living things?
8. Construct and stock an aquarium or make a terrarium.
9. You can learn a lot about plants that grow in particular ecosystems by making careful observations during your Zoo visit. Look for some of these plant characteristics as you visit the 'Sonora Desert', 'RJ Reynolds Forest Aviary' and the native woodlands between these two exhibits: plant with thorns; plant with waxy coating on leaves; plant with rough, thick bark; plant with very large leaves; plant with nuts, seeds, fruits or berries; plant with a fragrant bloom; plant growing on another plant; plant with very small leaves; plant with 'fuzz' or 'hair'
10. Research and learn about the American Zoo and Aquarium Association (AZA) and the American Association of Zoo Keepers (AAZK) organizations. Discuss their functions in the zoo world.
11. Discuss how the Zoo might serve the community and state in the future.

12. Create and present a puppet show or play about how children should act at the Zoo; for example, not feeding the animals, showing respect by not teasing the animals or crossing barriers, and refraining from touching plants and birds in the Aviary.
13. Prepare a short story or poem about three of your favorite zoo animals. Share these writings with the troop at a meeting or in your newsletter.
14. Bring your camera to the Zoo. Have a photography contest for the best pictures of Zoo plants and animals.
15. Explore careers available at a zoo -- such as zoo director, education curator, veterinarian, animal keeper, horticulturist, exhibit designer, etc.
16. Discuss the words in the "Animal Talk" list included in this packet. Learn the definition of at least five new words.
17. Try "Just for Fun" included in this packet. Scout's

signature

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Leader's signature

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Date badge completed

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# ZOO FACTS

*Before you visit, explain these basics to your troop:*

1. Wherever the animal lives in the zoo that is the animal's home. The animal will defend its home as if it were in the wild. The basic needs of each animal are met at the Zoo. Each animal requires food, shelter, water, and possibly companionship. We also fulfill other needs, such as trees for tree-dwelling animals.
2. We obtain only a few animals from the wild. Most were born in a zoo.
3. Many zoos use artificial rock to confine their animals because the rocks are more attractive than fences, lighter than real rocks, and can be built where they are needed.
4. Trees provide shade for the animals. Many of the trees are wrapped in wires or collars for protection. The wires keep the animals from eating the bark and killing the trees. The collars are electrified to keep the animals from climbing up and stripping the limbs and leaves off the trees.
5. All of our animals receive a carefully measured, specific diet. That is why we can't allow any extra feeding by our visitors. Extra feedings and unsuitable food could make the animals sick. If extra food is given, we cannot keep accurate diet records.

## ***DO NOT FEED THE ANIMALS!*** **ARE MARSHMALLOWS GOOD FOR POLAR BEARS?**

What would it be like to live in the zoo with the elephant, rhino, and kangaroo?

When the visitors come with their paper sacks and  
cellophane bags bulging with snacks? Popcorn and  
peanuts and bits of bread  
Are thrown at each hoof and are thrown at each head.

The tigers and zebras are zapped in the knees with  
raisins and cookies and chunks of cheese White chewy  
puffs are tossed into lairs. Are marshmallows good for  
polar bears? Candy and crackers, bananas and  
grapes bounce through the bars at funny shapes.

Too bad they cannot wear catcher's mitts  
For sometimes they miss and folks have fits, "Catch it,  
you dum-dum, I'll throw it once more, This is my very last  
apple core"  
There are those who are wise like a group of yaks, who  
recognize strangers and turn their backs. Or hippos in  
water refusing the air,  
They know that the throwers are waiting there.

Who can blame them for sulking and being so bitter? Would  
you want to bathe in a tub full of litter Get zonked in the  
nose or hit in the eye  
With a half-eaten crust of pizza pie?

Aside from the corn chips sailing through space Is the fact  
that the zoo is really a place To protect the animals and  
help them survive So we must remember each time we  
arrive That their diet is fine, they've endured this far, So,  
let's keep our pickles at home in a jar. And obey the  
signs, quite easy to read, just three simple words, **"DO  
NOT FEED"**.

(From the Washington Park ZODOERS Volunteer Newsletter)

6, Many visitors think our animals are lazy. Actually, many animals in the wild rest during the middle of the day. Our animals are no exception; many are active in early morning and late afternoon. Loud talking or running may upset the animals.

*NO PORTABLE RADIOS OR TAPE PLAYERS ARE ALLOWED IN THE PARK*

7. The NC Zoo owns 1,450 acres, which gives it the potential of becoming the largest natural habitat zoo. By natural habitat, we mean that the animals' homes will be as natural-looking as possible. Zoo animals are separated from visitors by water, artificial rockwork, and moats. "Natural habitat" does not mean that we are trying to make an exact replica of the animals' real home. This is not possible since North Carolina's climate is not the same as other areas of the world, and certain plants from other continents would not survive here. Instead, we combine plants that will thrive in North Carolina, with artificial rocks to make a landscape that is functional and pleasing to the eye. Why have natural habitats here at the Zoo? For one thing, it allows animals to behave naturally. For another, it is more pleasing to see animals without having to look at them through fences or cages. Habitats at the NC Zoo have been built to represent, as closely as possible, the animal's natural environment. The barns, where the animals rest at night and during bad weather, are hidden from the public view.
8. AZA is the American Zoo and Aquarium Association. It was established by 30 members in 1924 as an affiliate of the American Institute of Parks. It became independent in 1971. Its purpose is to "promote the welfare of zoological parks and aquariums and their advancement as public educational institutions, as scientific centers, as natural science and wildlife exhibitions and conservation agencies, and as cultural and recreational establishments, dedicated to the enrichment of human and natural resources...to foster the continued improvement and to aid in the exchange of zoological specimens...to advance public education on the need for wildlife conservation and preservation". The AAZK, the American Association of Zookeepers, is a professional organization of zookeepers that reflects the changing role of zookeepers.
9. At the NC Zoo we have animals that are on the endangered or threatened species list. The definitions for these terms are included in "Animal Talk". Below you will find a partial list of our animals and their status.

*ENDANGERED SPECIES*

|                  |                          |
|------------------|--------------------------|
| Lowland gorilla  | African elephant         |
| Dwarf crocodile  | Chimpanzee (in the wild) |
| Bali mynah       | Mandrill                 |
| Red wolf         | Red lechwe               |
| Cape hunting dog | Ocelot                   |

10. When the Zoo closes, almost all of the animals in outdoor exhibits return indoors. Knowing that they will find food, they are usually eager to come inside.

11 Unlike many TV wildlife programs that use tranquilizing drugs to work around animals, our veterinarian uses these drugs only in emergencies or when an animal must be moved quickly. Drugs are not used to move an animal in most cases. Rather, the animal is "taught" to feel comfortable in a crate before it is transferred. First, the opened crate is placed in the exhibit with the animal. Food is used to lure the animal into the crate and accustom it to the enclosure. After the animal has lost its initial fear of the crate, it is held there for several minutes. After this process has been repeated several times, the crate is locked and the animal is moved by truck to the new area. Since the animal has become accustomed to the crate, the risks of injury to the animal or its keepers are reduced. There is also less stress on the animal.

## *JUST FOR FUN*

This section is purely for fun; we give you some provocative questions and you provide the answers. Some questions are serious, some are frivolous, some are addressed in the text of this booklet, and some you'll have to think about.

1. Are zebras white with black stripes or black with white stripes?
2. Chimpanzees and gorillas are classified as great apes; baboons and patas monkeys are classified as monkeys. at obvious physical characteristic do you see in the monkeys that is lacking in the apes?
3. How many toes does an ostrich have?
4. What makes a bird a bird?
5. What is the difference in the way giraffes and zebras walk?
6. Why can't elephants survive without their trunks?
7. Why do flamingos often stand on one leg?
8. Are the dwarf crocodiles real?
9. Do ostriches hide their heads in the sand?
10. How do you tell the difference between a rhino and a hippo?

### *JUST FOR FUN*

(Answers)

1. Individual perceptions of zebra's coloration seem to vary in different cultures. Some people tend to perceive zebras as being white with black stripes, while others tend to see them as being black with white stripes.
2. Monkeys have tails, apes do not.
3. Two.
4. Feathers
5. When a giraffe walks, a fore leg and hind leg from the same side of the body are extended forward. A zebra walks by extending a fore leg from one side of the body and a hind leg from the other side.
6. Elephants need their trunks to bring water and food to their mouths. Their necks are too short to reach the ground.
7. Because if they pick up the other leg, they would fall down. (A silly zoo joke!) In reality, flamingos stand on one leg to rest.
8. Yes. Dwarf crocodiles are cold-blooded animals. Cold-blooded animals move very little except when threatened or hungry.
9. No, and we don't know how that rumor got started.
10. Rhinos have horns on their noses; hippos don't have horns.

# Animal Talk

**ADAPTATION:** *Inherited feature or behavior that improves an organism's particular habitat. (e.g., The long bill of the scarlet ibis allows it organisms to eat) chance of survival in a to probe in mud for small*

**AMPHIBIAN:** *A group of cold-blooded vertebrates, such as frogs, toads, and land and in the water. salamanders, that live on*

**AQUATIC:** *Living in, on, or near water; having a water habitat*

**ARBOREAL:** *Adapted for living in trees. (e.g., opossum, many monkeys, most buds)*

**BEHAVIOR:** *An individual's or species' response to a stimulus*

**BIPEDAL:** *Having two feet or walking on two feet*

**BROWSE:** *To eat shoots, twigs, and leaves of trees and shrubs (e.g., giraffe, gerenuk)*

**CAMOUFLAGE:** *Coloration that enables an animal to blend into its surroundings*

**CARNIVORE:** *An animal that eats the flesh of other animals (e.g., lion, Cape hunting dog, caracal)*

**CLASSIFICATION:** *Grouping organisms by characteristics into certain categories*

**COEXIST:** *To live in harmony with one another*

**CONSERVATION:** *The protection and preservation of animals, plants, and natural resources*

**CREPUSCULAR:** *Active at dawn or dusk (e.g., lion, dik dik)*

**DIURNAL:** *Active during the day (e.g., Cape hunting dog, meerkat)*

**DOMESTIC:** *Animals that have been bred over many generations for use by people*

**ECOLOGY:** *The scientific study of relationships between organisms and their environment*

**ECOSYSTEM:** *A system in which organisms interact in their environment*

**ENDANGERED SPECIES:** *A species that is in danger of extinction throughout all or a portion of its range (e.g., Bali mynah, gorilla, dwarf crocodile)*

**ENVIRONMENT:** *All external physical biological factors that act upon an animal*

**EXTINCT:** *A species no longer living (e.g., Carolina parakeet, dodo)*

**EXOTIC:** *Animals from another country*

**FLOCK:** *A group of animals herded together*

**GESTATION:** *Period of pregnancy (e.g., human gestation is 9 months.)*

**GLAZE:** *Animals that feed on grasses and other terrestrial plants, not on leaves or bark from trees and shrubs*

**GREGARIOUS:** *Living in a large group*

*HABITAT:* The particular part of the environment where an animal lives. For example, the habitat of an earthworm is moist soil.

*HERBIVORE:* An animal that feeds on plant material (e.g., impala, giraffe, zebra)

*INTERDEPENDENCE:* The interrelationship of organisms

*INVERTEBRATE:* An animal that doesn't have a backbone (mollusks, insects, spiders, starfish).

*LITTER:* Mammal offspring born at the same time

*MAMMAL:* A group of warm-blooded vertebrates that nourishes its young with milk and has a body covering of hair

*MIGRATIONS:* Regular, usually annual, movements from one location to another

*MOLT:* To shed hair or feathers periodically

*Niche:* The role that an animal or plant has in its habitat

*NOCTURNAL:* Active at night

*OMNIVORE:* An animal that feeds on animals and plants Any

*ORGANISM:* living thing

*PLUMAGE:* The protective covering (feathers) of a bird

*PREDATOR:* An animal that kills and eats other animals for food

*PREHENSILE PREY:* Adapted for grasping or holding, as a giraffe's tongue or a human's hand

*PRIDE:* An animal hunted or killed for food

*REPTILE:* A group of cold-blooded animals that includes snakes, lizards, turtles, and crocodiles; These animals breathe with lungs and are covered with scales

*SCAVENGER:* An animal that feeds on the remains of dead animals

*SOCIAL ANIMALS:* Animals that live in organized groups

*SPECIES:* Animals that are capable of reproducing

*TERRESTRIAL:* Pertaining to the earth; living on the ground, not in water or trees

*THREATENED:* Species likely to become endangered if conditions do not change

*TROOP:* Term used for a group of some of the primate species such as baboons and chimpanzees

*VERTEBRATE:* Animal that has a backbone such as fish, amphibians, reptiles, birds, and mammals

# Wildlife Observations

OBJECTIVES *correlated with the NC Competency-Based Curriculum*  
Students will:

- ~ demonstrate the ability to observe
- ~ use senses to investigate the natural world
- ~ investigate the environmental adaptations of living organisms
- ~ demonstrate the ability to communicate
- ~ demonstrate the ability to infer
- ~ develop an understanding of the need for conservation, preservation and wise use of natural resources

*I hear and I forget I  
see and I remember, I  
do and I understand  
Chinese Proverb*

Materials:

- ~ Wildlife Observation work sheet - one per student
- ~ chart paper - approximately five sheets per team
- ~ pictures of animals that may be seen at the Zoo (optional)
- ~ access to reference materials such as encyclopedias, *ZooBooks*, *Ranger Rick* magazines, other nature books and/or videos

## BEFORE VISITING THE ZOO

1. Inform students that it is possible to learn a lot about plants and animals by observing them very carefully. Scientists in the field spend many, many hours watching animals and recording what they see.
2. Divide students into cooperative learning teams, with four per group.
3. Explain that teams will be making and recording observations of at least five Zoo animals. Each team may choose the animals to be observed or you may assign them. A partial listing of the Zoo's collection is in this packet. Keep in mind that occasionally some animals may not be visible or on exhibit.
4. Each team needs an "ears observer", an "eyes observer", a "feet and toes observer", and a "body coverings observer." Everyone in the group should watch for postures, expressions, noises and other signals or behaviors that might indicate communication techniques." Observations should also be recorded of the animals' Zoo habitats. Explain that the Zoo's naturalistic exhibits look very much like the animals native habitats.
5. Urge students to use their senses when making observations. Notice the smells and sounds as well as the sights. Encourage use of descriptive words when recording observations. Sketching and labeling are also good recording techniques. Point out that some exhibit signs provide accurate details of animal adaptations.
6. Instruct students to bring observation sheets back to class for use in the follow up activity.

*Continued*



## AT THE ZOO

1. Each student will need one observation sheet and a pencil for recording observations.
2. Students should stay with their cooperative learning team while making observations.
3. Chaperones may provide guidance and encouragement as needed.

## AFTER VISITING THE ZOO

1. Facilitate a discussion about the things animals need in order to survive and be healthy. How do animals go about getting those things? Do they use their feet, eyes and ears? How might their body coverings help? Does communication play a role in survival?
2. Each team should select an animal they observed and share their observations with one another. It may be helpful to have pictures available of the Zoo animals.
3. On chart paper, record the species, describe the Zoo habitat, eyes, ears, feet, body coverings and communication techniques in a format similar to Fig. I. (see answer sheet). Teams should discuss and record ways each adaptation might help the animal get the things it needs in order to survive. Encourage all team members to contribute ideas. At this point, don't worry about accuracy. Making inferences is the goal. Repeat this procedure with all animals observed.
4. Allow time for each team to share observation charts with the class. Encourage class discussion about ways the adaptations might help with survival. Post the charts around the room. If any teams observed the same animals, have them compare observations and inferences.
5. Use reference materials such as encyclopedias, ZooBooks, *Ranger Rick* magazines and other nature books and/or videos to confirm the accuracy of students' ideas. Have students place check marks beside those that can be verified. Cross through the ideas that are not accurate. Place question marks beside the ones for which students can not find references. This search for verification can be an ongoing class project. Students should begin to see some common relationships between adaptations and ways animals survive in their particular habitats.



6. Facilitate a discussion by asking the following: If certain adaptations are suitable to particular environments what might happen if an animal's habitat is changed or destroyed? Do humans change and/or destroy animals' habitats? In what ways? As human populations increase what does that mean in terms of sharing the Earth's resources with other animals and plants?

7. Can you think of things we can do to help the Earth be a healthier place for all living things?

Make a  
Difference

Turn off the water when  
brushing your teeth.

Begin recycling at home.

Think globally and act  
locally.

Turn off lights in rooms .  
not being used.

**Take your lunch to school  
in reusable containers. •**



ANSWER KEY  
Wildlife Observations

AFTER VISITING THE ZOO

1. Animals need clean air, water, food, shelter and space. Among other things, their eyes are used to locate food, water, shelter and each other. Their nose enables them to breath and may help some animals locate food and water as well as detect territorial boundaries. Eyes and ears also help to detect predators. Feet enable animals to move from place to place in search of food and water and to escape from predators. Their body covering provides protection and warmth and often serves as camouflage. Animals may communicate with one another to warn of danger, signal that food has been located and in courtship rituals.

3. Fig 1.

|   |  |
|---|--|
| <b>Species:</b><br><b>Description of Zoo habitat:</b> |  |
| <b>Description of Eyes:</b>                           | <b>How Adaptation Might Help Animal Survive:</b> |
| <b>Ears:</b>  |  |
| <b>Feet &amp; Toes:</b>                               |  |
| <b>Body Coverings:</b>                                |  |
| <b>Communication Techniques:</b>                      |  |

5. Some common relationships may be: the coloration of an animal's body often helps it blend in to its surroundings; sharp teeth and strong muscular feet with claws help some predators catch and hold their prey; eyes located on the sides of the head provide a wide field of vision for prey animals' flippers, webbed feet and streamlined bodies enable animals to swim quickly through water; oversized ears help animals keep cool in hot environments; thick fur and blubber provide warmth in cold environments.

6. If an animal's habitat is changed or destroyed it must adapt to new conditions or it may be unable to survive.

Humans change or destroy habitats by clearing land in order to build roads, houses, offices, factories, farms, shopping centers and other development. Drilling for oil and other minerals alters habitats. Air, soil and water pollution affect habitats as well. When people disrupt habitats they not only destroy the natural homes of plants and animals, they upset a delicate system in which all living things depend very much on each other.

As human populations increase, more people use more trees, energy, food and water. That leaves fewer resources for other species.

7. A few of the many things we can do to help the environment are:

- . conserve the natural resources that we share with all living things by using only what we really need
- recycle and reuse products made from natural resources, such as paper, aluminum, glass and plastic
- reduce the amount of trash that we produce by not purchasing things we don't really need and by
  - avoiding over-packaged and non-recyclable products
- carpool, walk and ride bicycles to save energy and decrease pollution
- compost rather than sending food and yard wastes to landfills
- decrease the use of pesticides and other harmful chemicals
- dispose of trash properly so it does not end up in animals' habitats
- put thought and planning into how we use and care for natural resources in the future