



TEACHER'S GUIDE

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Peoria Zoo
is home to
hundreds of
unique and
educational
animals.
This guide will
prepare zoo
visitors for a
fun filled
expedition of
adventure and
learning



WELCOME TO THE PEORIA ZOO!

You can use this guide in a few ways:

- to enhance programs offered at the Zoo
- to create your own activities for your group
- for self-guided tours

The guide focuses on animal diversity, range, habitat, and fun facts about each species here at the Peoria Zoo.

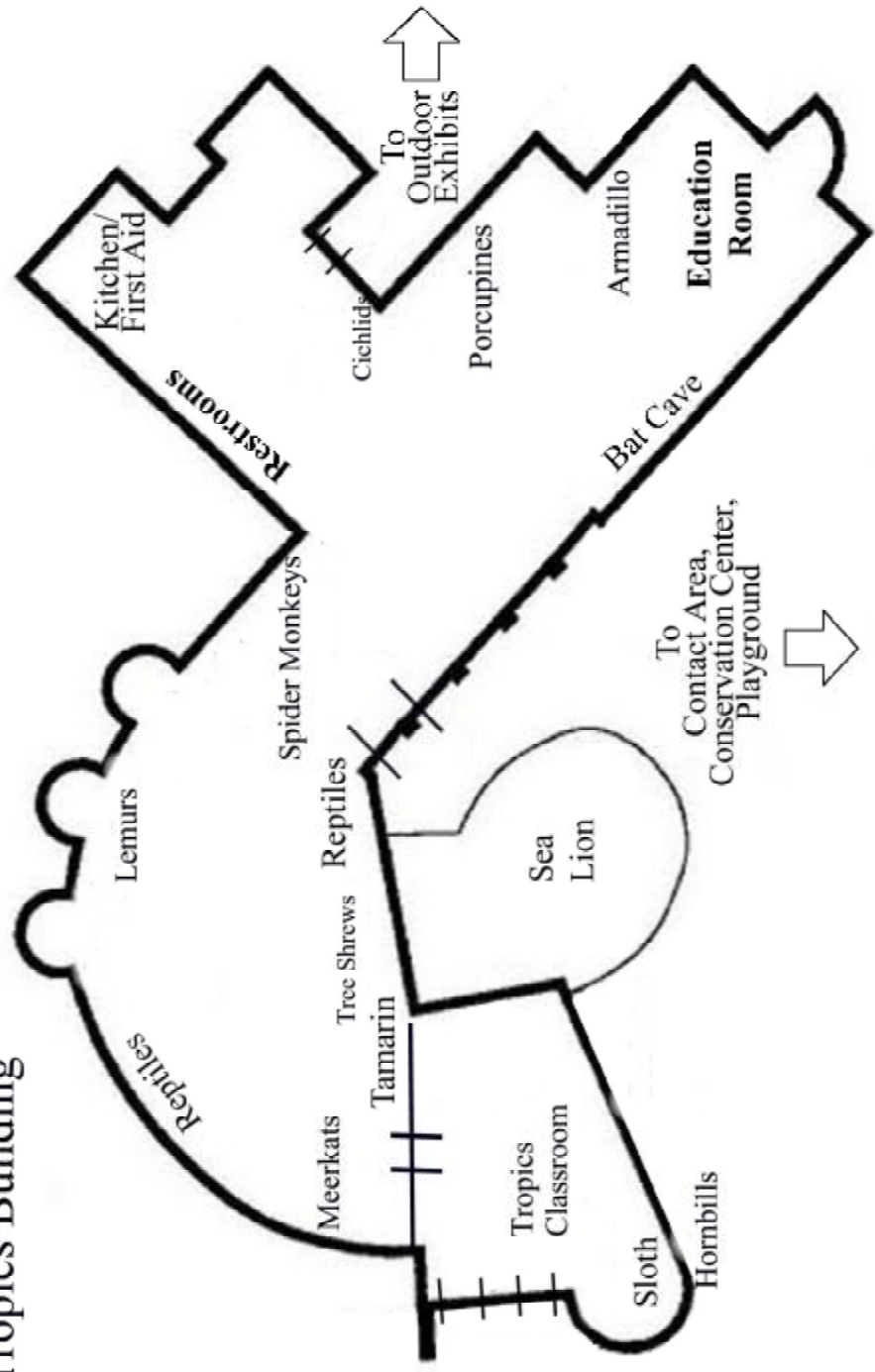
Use of the guide in cooperation with zoo fact signs posted for each animal at the zoo will provide an educational learning experience.

Don't forget the activities in the back of this guide (not only fun but helps meet state standards!)

PREPARING FOR YOUR TRIP

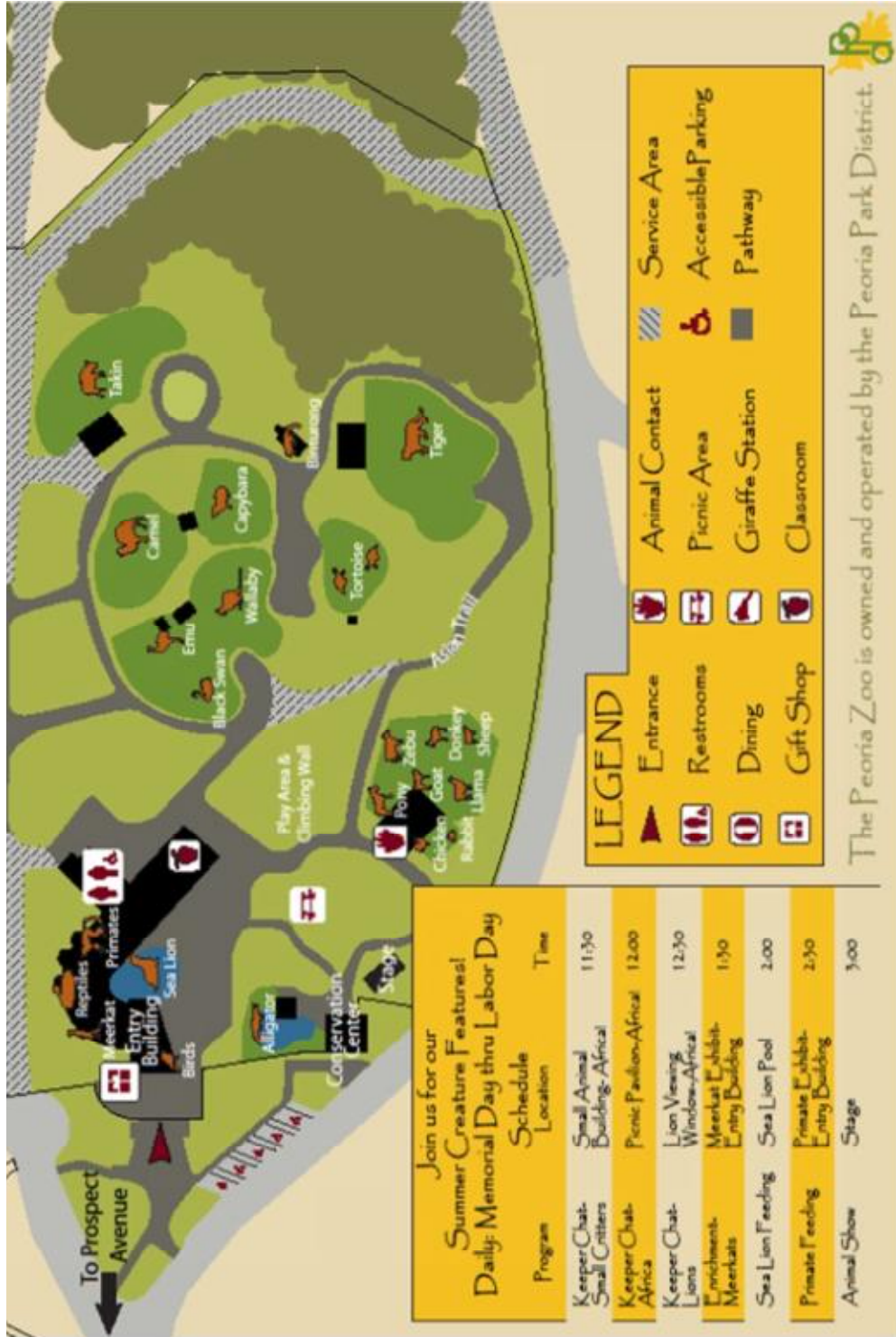
- ◆ Presenting a general overview of the itinerary will help students feel prepared and excited about their trip.
- ◆ Present students with reasons Zoos are important
 - Many animals are losing their natural habitats
 - Animals can live safely and raise their young
 - Opportunity to teach conservation practices
 - One on one experience with animals
- ◆ Explain appropriate behavior while at the Zoo which is "home" to the animals here
 - ◆ Polite behavior toward the animals is important
 - ◆ No yelling, banging on exhibit glass, or climbing on railing, etc.
 - ◆ No picking plants/leaves
- ◆ Name tags, color coordinated shirts or any identifying symbol is a great idea for teachers and students visiting the Zoo
- ◆ Provide chaperone with a copy of the map with meeting places marked
- ◆ Picnic areas are available in the Zoo or in Glen Oak Park surrounding the zoo, shelters may be reserved by phoning 309-682-1200.

Tropics Building



Creating connections for over 50 years!





Join us for our
Summer Creature Features!
Daily Memorial Day thru Labor Day

Program	Schedule Location	Time
Keeper Chat- Small Critters	Small Animal Building-Africa	11:30
Keeper Chat- Africa	Picnic Pavilion-Africa	12:00
Keeper Chat- Lions	Lion Viewing Window-Africa	12:30
Enrichment- Meerkats	Meerkat Exhibit- Entry Building	1:30
Sea Lion Feeding	Sea Lion Pool	2:00
Primate Feeding	Primate Exhibit- Entry Building	2:30
Animal Show	Stage	3:00

LEGEND

- ▶ Entrance
- 👤 Animal Contact
- 🚻 Restrooms
- 🍴 Picnic Area
- 🍽 Dining
- 🏪 Gift Shop
- 🦒 Giraffe Station
- 🏠 Classroom
- 🚗 Accessible Parking
- 🛤 Pathway
- 🏠 Service Area

The Peoria Zoo is owned and operated by the Peoria Park District.

Look for these symbols
throughout the Zoo!



A national association that Zoos and Aquariums belong to after going through a rigorous evaluation process. Zoos bearing this logo (such as the Peoria Zoo) have passed all the requirements necessary. Zoos in this organization work together, sharing information, research and even animals! Find out more at www.aza.org.



The Species Survival Plan (SSP) is a program that identifies animals that are in danger in the wild. These animals serve as representatives of their species out in the wild. They are in breeding programs in Zoos around the country. Using a system called ISIS (International Species Inventory System), we share genetic information of our animals with other zoos so we can breed animals that might eventually be introduced back to the wild.

Look for this symbol on animals such as lions, tigers, Cotton-top tamarins, rhinoceros, ring tailed lemurs, mandrill, spider monkey, Grevy's zebra.

Home to a Variety of Animals

The Peoria Zoo is home to all five classes of vertebrate animals along with several invertebrate species



Vertebrates

Vertebrates are animals with backbones, most with elongated, bilaterally symmetric bodies. Most vertebrates have two pair of specialized appendages (i.e. Birds for flying, fish for swimming) and include amphibians, birds, fish, mammals and reptiles.

- ◆ **Amphibians:** are considered to be the first animals to adapt to life on land. They are cold blooded animals with smooth, moist, permeable skin. Most return to the water to lay their eggs and their young go through distinct life stages before becoming adults (i.e. tadpoles to frogs). Amphibians also serve as environmental indicators for scientists, as they are normally the first to show signs of detrimental changes in an environment. They are considered to be the proverbial “canary in the coal mine”.
- ◆ **Birds:** are feathered, warm-blooded vertebrates and most are capable of flight. They reproduce by laying calcareous eggs and most care for their young. Since birds are warm-blooded and highly mobile, they are able to live in every habitat and are found on all seven continents.

- ◆ **Fish:** are the oldest forms of vertebrate, dating back 450 million years. They are cold-blooded, having mucous covered bodies making them feel slimy. Most are scaled and have fins (modified appendages) to swim. Although they originated in the salt waters of the Ocean, many have adapted to fresh water environments.

- ◆ **Mammals:** are the only class of animals that grow fur or hair on their bodies. Most females give live birth and have mammary glands to feed their young. Most mammals only have two sets of teeth, while most fish, amphibians and reptiles teeth are replaced constantly. They are warm blooded and species occur in every environment.


- ◆ **Reptiles:** are the first "true" land dwellers*. They are cold-blooded vertebrates with scales that are dry to the touch. Their body temperature is determined by their surroundings and they can often be found sunning themselves to raise their body temperature. Most female reptiles lay eggs with a leathery exterior that prevents them from drying out.

Invertebrates

Invertebrates are animals with no backbone. They make up ninety six percent of all identified species in the world. The invertebrates perform extremely important functions in our environment such as turning organic matter into soil, pollination, population control of other species, food for other species including humans (lobster, crab) and creating useful products such as honey, wax, silk, and shellac to name a few. It is believed that there are many invertebrate species left to discover.



A few things to make using this guide easier:

Look for the 

When you see this symbol under the animal descriptions, these facts are found on the animal's signs. You can use them if you would like to make a scavenger hunt for your group.

Animals in this guide are color coded to areas they are located in the Zoo.

African animals will be in brown

Tropics building animals will be in green

Asian trail animals will be in red

Conservation center animals will be in blue

Treetops animals will be in purple

Australia walk-about animals will be in orange

Contact area animals will be in grey

Amphibian

Axolotl

Where in the Zoo? Conservation Center

Scientific Name: *Ambystoma mexicanum*

Range & Habitat: SE Mexico city and Mexico
Indigenous to Lake Xochimilco in stagnant water, slow moving channels

- ◆ Unlike many vertebrates, the body is not completely bony, cartilage makes up the ankles, wrists, and support system of the gills
- ◆ Average life span is 10 to 12 years or up to 25 in captivity
- J** Critically endangered due to habitat destruction, by pollution, and introduced species

Frog, Poison Arrow

Where in the Zoo? Conservation Center

Scientific Species: *Dendrobates (species varies)*

Range & Habitat: South American countries, Panama, Nicaragua, Venezuela, Guyana, Colombia, Brazil, Surinam
Rain forest floor near small streams, pools

- ◆ Named because some Native American tribes used secretions to poison their darts (3 species are dangerous to humans)
- ◆ Research is being done because some compounds in their bodies (if harnessed correctly) are believed to be 200 times more powerful than morphine.
- ◆ Vulnerable due to decreasing habitat they may be put on the endangered list
- J** Bright colors are used to warn predators of their poison

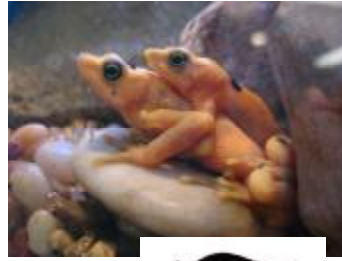


Frog, Golden

Where in the Zoo? Conservation Center

Scientific Name: *Atelopus zeteki*

Range & Habitat: Panama
Forest floor, along forest
streams, waterfalls,
moss covered boulders



- ◆ Secrete poison to help protect themselves from predators
- ◆ Critically endangered and possibly extinct in the wild
- J No eardrums, communicate by waving its hands



Toad, Colorado River

Where in the Zoo? Conservation Center

Scientific Name: *Bufo alvarius*

Range & Habitat: Sonoran desert, SW United States, and NW
Mexico

Damp areas of desert, mountain canyons,
grassland, forests

- ◆ Endangered in California, threatened in Mexico, common in the rest of their range
- ◆ Largest native toad species in the United States
- J Have poison on their skin that can be hazardous if ingested by dogs or small animals

Birds

Budgies

Where in the Zoo? Australian Walk-Through (May-September)

Scientific Name: *Melopsittacus undulatus*

Range & Habitat: Arid and semi-arid zones of Australia in open woodland or grasslands near water

- ◆ One of the most popular domesticated birds
- ◆ Adapted to drought conditions that may last up to 10 years
- ◆ Can live up to 20 years in captivity

Chicken, Domestic

Where in the Zoo? Animal Contact Area

Scientific Name: *Gallus gallus*

Range & Habitat: Originated in SE Asia

- ◆ Use many sounds to communicate
- ◆ Males can be identified by red combs on head and wattles under the chin



Emu

Where in the Zoo? Australian Walk Through

Scientific Name: *Dromaius novaehollandiae*

Zoo Name: Earl, Swiffer & Duster

Range & Habitat: Most of Australia

Open county habitats from semi desert, grasslands and open woodlands

- ◆ Ingest pebbles to held with food digestion
- ◆ Government wished to reduce numbers because they destroy cereal crops
- ◆ Population has survived well in spite of reduction
- J Males incubate eggs, for 56 days

Hornbill, Papuan

Where in the Zoo? Tropics Building

Scientific Name: *Rhyticeros plicatus*

Zoo Name: Fiona

Range & Habitat: Found in Eastern Indonesia and New Guinea
Evergreen trees in primary and secondary forests

- ◆ The large bill assists in preening, constructing the nest and catching prey
- ◆ Monogamous and territorial, males and females both raise the young
- ◆ Females wall themselves into a tree hollow and stay their until their young are fully feathered. Males will feed the females through a hole in the hollow while they are in the nest



Kookaburra

Where in the Zoo? Australian Walk-Through (May-Sept)

Scientific Name: *Dacelo novaeguineae*

Zoo Name: Milton (2003) & Molly (2004)

Range & Habitat: Eastern and Southwest Australia
Introduced into Tasmania
Open forest and woodland

- ◆ Use mimicry to copy sounds they hear around them
- ◆ Prey on animals regarded as pests by people
- ◆ Wide spread and in no danger of extinction
- J** Kookaburra's well known for their braying laugh-like call

Peafowl

Where in the Zoo? Asian Trail

Scientific Name: *Pavo cristata*

Range & Habitat: India, Pakistan, Sri Lanka
Open forests and undergrowth

- ◆ Eleven different calls, some can be very loud
- ◆ Peacock only refers to the male, a peahen is a female and babies are peachicks

J Male's 4 to 5 foot train is not his real tail but an ornament made up of over 200 feathers, the tail is located underneath and lifts the feathers when displayed

Swan, Black

Where in the Zoo? Australian Walk-Through

Scientific Name: *Cygnus atratus*

Range & Habitat: Australia and introduced into New Zealand
Wetland area, water less than 3 feet deep

- ◆ Black swans are social and nest side by side
- ◆ Regained most of their range after hunting was stopped
- J** Only swan native to Australia



Weaver, Taveta Golden

Where in the Zoo? Treetops in Africa

Scientific Name: *Ploceus castaneiceps*

Range & Habitat: Found in Kenya and Tanzania
Open Woodlands

- ◆ Nest in large colonies
- ◆ Very noisy birds that chatter constantly
- ◆ They get their name by the elaborate nests they build
- ◆ Males are more colorful, with yellow patches and greenish wings and tail. Chestnut patches on the chest and nape



INVERTEBRATES

Insects

Cockroaches, Madagascar Hissing

Where in the Zoo? Treetops in Africa

Scientific Name: *Gromphadorhina portentosa*

Region & Habitat: Madagascar

Rainforest among decaying
logs and vegetation

- ◆ There are 3500 different species and 99% are not considered pests
- ◆ A cockroach can live up to 9 days without a head
- ◆ Spiracles on their body push air out to create the hissing noise
- J Cockroaches have changed very little over the past 250 million years



Invertebrates

Arthropods

Scorpion, Emperor

Where in the Zoo? Treetops in Africa

Scientific Name: *Pandinus imperator*

Range & Habitat: Coastal West Africa, Senegal to Congo and
Gabon

Hot, humid rainforests

- ◆ Emperor Scorpions do not need to drink water, it is obtained from their food
- ◆ Emperor scorpions are being monitored due to habitat destruction and pet trade
- J The sting of most scorpions is not deadly to human, but is very painful.

Tarantula

Where in the Zoo? Tropics Building

Family: Theraphosidae

Range & Habitat: Tropical and desert regions throughout the world

- ◆ Tarantulas grow and molt their exoskeleton
- ◆ Tarantula has eight eyes but can only distinguish between light and dark
- ◆ Several species are threatened due to pet trade
- J Most North American varieties are harmless to humans (unless you are allergic) and will only bite as a last resort to protect themselves.
- J Species that may be exhibited at the Zoo include Mexican Blonde tarantulas and Chilean Rose Tarantula



Vinegaroon

Where in the Zoo? Tropics Building

Scientific Name: *Mastigoproctis giganteus*

Range & Habitat: Southern and Southwestern United States and south into Mexico
Debris on soil, under logs and rotting wood

- ◆ They possess no venom, instead they eject an acetic-acid bearing liquid
- ◆ Have 8 eyes, 2 in the middle and 3 on each side of their head

Invertebrate fun facts

Did you know.....

...about 97% of all animals are invertebrates

...there are more insects in one square mile of farm land than there are humans in the world

...it is the female mosquitoes that bite. Mosquitoes will transmit disease to more than 700 million people annually

...ants can carry more than 50 times their weight

...beetles account for nearly 1/4 of all known plants and animals

...there are nearly as many species of ants (8800) as there are birds (9000)

...flies can "taste" with their feet

...some species of mayflies can take up to 3 years to hatch-then have a lifespan of about 6 hours

...water spiders spend their entire life underwater in an air bubble they've spun from silk

...the Goliath Bird Eating Spider is the largest spider, measuring 12 inches of leg span and can weigh 2.5 ounces

...almost 100% of a fireflies luminescence light is given off as light; in comparison, a regular light bulb gives off only 10% of its energy as light and 90% as heat

...the largest butterfly in the world is the Queen Alexandria's Birdwing; found in New Guinea it has a wingspan of almost 11 inches

Mammals

Armadillo, Three-banded

Where in the Zoo? Tropics building

Scientific Name: *Tolypeutes matacus*

Range & Habitat: Found throughout Brazil, Argentina, Bolivia and Paraguay

Dry forests and savannas

- ◆ Named for the three bands of tough skin along the middle of the back
- ◆ When threatened they will roll into a ball
- J Can sniff out a worm 8 inches un-



Bat, Spear-nosed

Where in the Zoo? Tropics Building

Scientific Name: *Phyllostomus hastatus*

Range & Habitat: Central & South America, Honduras to Paraguay, S. Brazil, Trinidad

Forests and open country, near water

- ◆ Bats are "true winged" and the only mammal able to fly
- ◆ Bat waste/guano used as fertilizer in parts of the world
- J The bat is named for its "nose leaf" which aids in echolocation, so that the bat can find food

Donkey, Common

Where in the Zoo? Animal Contact Area

Scientific Name: *Equus asinus*

Zoo Name: Jasmine & Violet

Habitat: Domestic are worldwide, wild are found
in N. Africa, Arabian Peninsula
Desert, dunes, savanna, grasslands and
Agricultural areas

- ◆ Used as beasts of burden since 3000 B.C.
 - ◆ Large ears provide great hearing and also aid in cooling, allowing body heat to escape
 - ◆ Numbers continue to grow; used for farming, transportation
- J** Able to carry up to 200 pounds

GAZELLE, THOMSON'S

Where in the Zoo? Africa

Scientific Name: *Gazella thomsoni*

Zoo Names: Johnny, Spot and Jake

Range & Habitat: Southern Kenya to Northern Tanzania
Open plains and grasslands

- ◆ Sometimes called a "Tommy"
- ◆ Heightened sense of hearing, sight, smell that give them early warning of predators
- ◆ Males defend their territories and fight other encroaching males with horns
- ◆ Not at risk



AZA Species Survival Plan

GERENUK

Where in the Zoo? Africa

Scientific Name: *Litocranius walleri*

Zoo Name: Chad

Range & Habitat: E. Africa from Serengeti Plain of Tanzania,
along Northern coast

Treeless plains to dry high deserts,

- ◆ Contribute to nutrient cycling in the ecosystem through their foraging activity
- ◆ Not considered to be at risk due to protection in most of its range, although loss of habitat is a concern
- ◆ Will stand on their back legs to reach leaves in the trees
- ◆ Have a strong muscled neck that allows them to hold themselves up to reach the leaves



AZA Species Survival Plan®

GIRAFFE

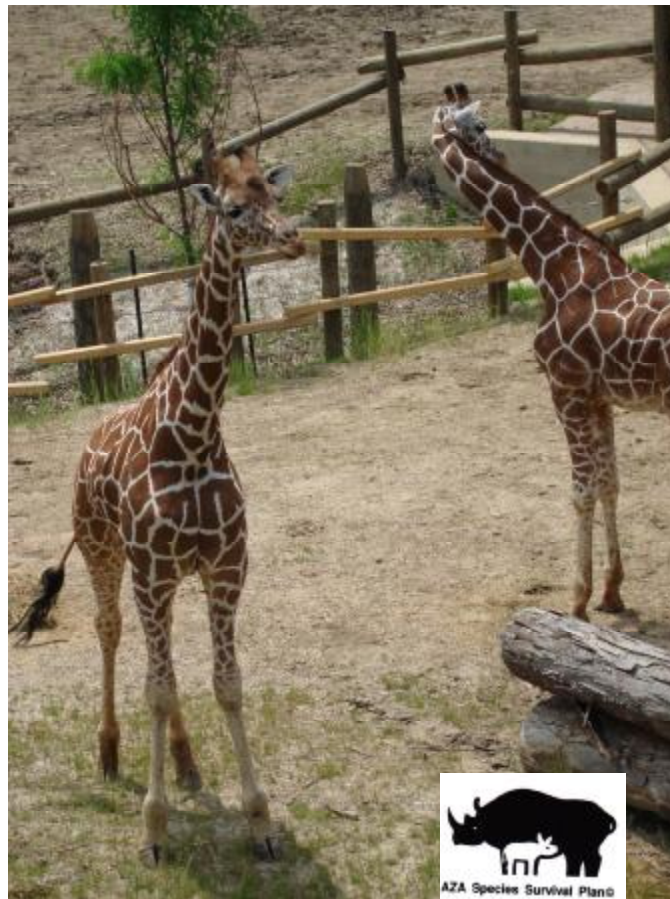
Where in the Zoo? Africa

Scientific Name: Giraffa camelopardalis

Zoo Name: Vivian and Taji

Range & Habitat: Africa South of the Sahara to E.
Transvaal, Natal, N. Botswana,
reintroduced to S. Africa game reserves
Savannas, grassland, open woodland
With Acacia growth

- ◆ Giraffe's heart can pump 16 gallons of blood in one minute
- ◆ Other animals use giraffes as watchtowers for predators
- ◆ Able to reach speeds of 32 to 60 km/hour and sprint for long distances
- ◆ Not considered to be at risk due to protection in most of its range, although loss of habitat is a concern



Goat, Domestic/ Nigerian Dwarf

Where in the Zoo? Animal Contact Area

Scientific Name: *Capra hircus hircus nigerian*

Range & Habitat: Wild ancestors from Asia Minor to Afghanistan and Pakistan, Oman, Crete, Variety of habitats

- ♦ Wild goats listed as vulnerable due to competition for forage from domestic flocks
- J Goats are valued for production of meat, milk and wool; Nigerian dwarf goats are able to produce larger quantities of milk for their size.



Domestic Horse

Where in the Zoo? Animal Contact Area

Scientific Name: *Equus caballus*

Zoo Name: Silver

Habitat: Open plains, grasslands

- ♦ Only one species of domestic horse with around 400 different breeds
- ♦ Przewalski's horse is the only true wild horse that was never domesticated and were last seen in Mongolia in 1968
- J Horses were probably domesticated around 4,000 B.C.

HOG, RED RIVER

Where in the Zoo? Africa

Scientific Name: *Potamochoerus porcus*

Zoo Name: Athena, Sultana, Art

Range & Habitat: West and Central Sub-Saharan Africa,
Northern S. Africa and Madagascar
Primary and secondary forests,
Savanna, thickets, swamps, steppes
and around human villages

- ◆ Most active at night, during day they spend time in burrows of dense vegetation
- ◆ Threat displays of their facial masks and loud noises
- ◆ Madagascar introduction is believe to be by human introduction or possibly floating across on papyrus beds which detach and float out to sea
- ◆ Population on the rise, detrimental results as they are destructive to crops and carry transmittable diseases to domestic pigs



Llama

Where in the Zoo? Animal Contact Area

Scientific Name: *Lama glama*

Zoo Name: Osmar

Range & Habitat: Native to S. Peru through W. Bolivia,
NW Argentina and NE Chile
Open dry mountains and plains

- ◆ Llamas' domesticated in Peru 4000 – 5000 years ago and used as beasts of burden.
 - ◆ Meat is used for food, fleece for clothing, hide for sandals, fat for candles, hair braided into rope and dried feces for fuel.
 - ◆ Not threatened but numbers are declining as they are replaced by modern means of transportation
- ⌋ When upset llamas spit a foul-smelling liquid



Lemurs, Mongoose

Where in the Zoo? Tropics Building
 Scientific Name: *Eulemur mongoz*
 Zoo Name: Calvin and Tamatave
 Range & Habitat: Madagascar and Comoros
 Island
 Tropical dry forest

- ◆ They love nectar, making them important pollinators
- ◆ Endangered due to loss of habitat to agriculture, hunting and pet trade
- J Males have pale faces and reddish cheeks while females have dark faces and white cheeks (both of the zoos mongoose lemurs are males)



Lemurs, Ring-tailed

Where in the Zoo? Tropics building
 Scientific Name: *Lemur catta*
 Zoo Name: Aiden & Donovan
 Range & Habitat: Southwest Madagascar
 Arid, open areas and forests

- ◆ Tails ringed with 13 alternating black and white band and can measure up to 2' in length
- ◆ Spend most of their time on the ground
- ◆ They use their striped tails as "flags" as they are moving so the troop can stay together.
- ◆ Endangered due to loss of habitat to agriculture, hunting and pet trade
- J Use odor for communication, use glands on arms to soak tail and spread scent



Lion, African

Where in the Zoo? Africa

Scientific Name: *Panthera leo krugeri*

Zoo Name: Lizzie and Arthur

Range & Habitat: Sub-Saharan Africa, normally found in savannas or grasslands

- ◆ A group of lions is called a pride and is made up of related females and offspring and a small number of adult males.
- ◆ Females do most of the hunting, working together to bring down the prey, allowing them to hunt bigger animals.
- J** Lions are the only members of the cat family to display obvious sexual dimorphism—that is, males and females look distinctly different



Mandrill

Where in the Zoo? Africa

Scientific Name: *Mandrillus sphinx*

Zoo Name: Little Big Man, Philly and Tara

Range & Habitat: Cameroon, Gabon, Guinea, Congo
Tropical forests

- ◆ “Mandrill” is actually two words: “Man” meaning man-like and “drill” is a West African name for the animal
- ◆ Have a pouch on the inside of their cheeks in which to store food for later
- ◆ Endangered



Meerkat, Slender-tail

Where in the Zoo? Tropics Building

Scientific Name: *Suricata suricatta*

Zoo Name: Tac, Toe and Eenie

Range & Habitat: Southern Africa, Desert or rocky terrain

- ◆ Band together to scare off larger predators
- ◆ Not threatened or endangered
- J Meerkats can safely eat scorpions and snakes because they are immune to the venom



Monkey, Black-handed Spider

Where in the Zoo? Tropics Building

Scientific Name: *Ateles geoffroyi*

Zoo Name: Butch, Agnes, Gracie, and Darla

Range & Habitat: NE Mexico (Tamaulipas), west coast of Mexico to NW Columbia
Rainforests, high canopies

- ◆ When approached they will break off dead branches weighing up to 11 pounds and drop them at the observer
- ◆ Listed as Endangered, natural habitat has been reduced by ninety percent
- J Long prehensile tail used to grasp objects and climb



Monkey, Colobus

Where in the Zoo? Africa

Scientific Name: *Colobus guereza*

Zoo Name: Tana, Scout, Mazey and Cody

Range & Habitat: Equatorial Africa,
Mount Kilimanjaro to
Nigeria
Forests, along riverbanks

- ◆ Rarely leave the trees to come down to the ground
- ◆ Bushy tails are often longer than their bodies
- ◆ White fur on the monkey's sides serves to confuse predators and also aids in slowing their descent when jumping from branch to branch (works like a parachute)
- ◆ Threatened due to habitat destruction, and hunting for their fur



Mole rat, Giant Zambian

Where in the Zoo? Treetops

Scientific Name: *Cryptomys mehowi*

Range & Habitat: Congo, northern Zambia and Central Angola
Tropical woodland and savannah, underground

- ◆ Eyes are small and only detect light or dark
- ◆ Their skin is loose and allows them to shake off dirt and turn around easily in tunnels.
- ◆ The large incisors allow them to dig out their tunnels and the strong muscular lips behind the incisors keep dirt out of their mouth while they dig.



Reeve's (Chinese) Muntjac

Where in the Zoo? Asian Trail

Scientific Name: *Muntiacus reevesi*

Zoo Name: Samson and Peach

Range & Habitat: Southern China and Taiwan

Found in temperate and tropical forests with large amounts of cover

- ◆ Males have antlers and canine teeth that can get up to 1 inch long
- ◆ They use their extremely long tongue to reach many of their favorite foods
- ⓵ Muntjacs make a sharp barking sound as their alarm call, giving them the nickname barking deer.



Porcupine, African Crested

Where in the Zoo? Tropics Building

Scientific Name: *Hystrix africaeaustralis*

Zoo Name: Spike, Brownie & Snickers

Range & Habitat: Forests, plantations, rocky areas, deserts

- ◆ Rattle quills vibrated together produce hiss-like rattling
- ◆ Excellent swimmers
- ◆ Not threatened but have disappeared from heavily settled areas
- ⓵ Babies are born with soft quills that begin to harden within a few hours after birth



RHINOCEROS, WHITE

Where in the Zoo? Africa

Scientific Name: *Ceratotherium simum*

Zoo Name: Leo and Harris

Range & Habitat: Eastern and Southern Africa
Open grassland and flood plains

- ◆ Horn is not attached to the skull, it grows from the skin and is made of the same material as a fingernail
- ◆ Unlike other rhino species, females travel in groups between male territories
- ◆ Northern White Rhino is listed as critically endangered, while Southern White Rhino is at low risk due to strict conservation and poaching laws.



Sea Lion, California

Where in the Zoo? Tropics Building

Scientific Name: *Zalophus californianus californianus*

Zoo Name: Rosa

Range & Habitat: West Coast of North America, coast of Japan and Korea and Galapagos Islands
Coasts and rarely more than 10 miles out to sea

- ◆ Sea Lions have hind flippers which can be rotated to provide better locomotion on land (Seals do not have this physical adaptation)
- ◆ Sea Lions have external ear flaps that allow them to locate prey under water easier (seals do not have these)
- ◆ Population has rebounded from over hunting and is stable
- J May dive up to 1000 feet and close their ear flaps and nostrils while underwater



Shrew, Black and Rufous Elephant

Where in the Zoo? Treetops building

Scientific Name: *Rhynchocyon petersi*

Zoo Name: Gonzo

Range & Habitat: forests and dense woodlands of eastern Kenya and Tanzania.

- ◆ Found in pairs on adjoining territories
- ◆ Mate for life
- J Use their long nose to sniff out insects and gather them with their tongue.



Shrew, Northern Tree

Where in the Zoo? Tropics Building

Scientific Name: *Tupaia belangeri*

Zoo Name: Rocky & Natasha

Range & Habitat: A wide variety of forests from Eastern Nepal and Bangladesh to southeastern China, Indo china, and the Malay Peninsula

- ◆ Females nurse their young every two days and essentially ignore them between feedings—they don't groom or care for their nest. The young will remain with the adults until sexual maturity, which is about 4 months.
- J Have the highest brain to body mass ratio of any animal, even larger than humans.



Sloth, Hoffman's Two-toed

Where in the Zoo? Tropics Building

Scientific Name: *Choleopus hoffmanni*

Zoo Name: Dustin & Tootsie

Range & Habitat: Nicaragua to Peru and Central Brazil

Tropical forests, almost entirely arboreal

- ◆ Spends nearly its entire life upside down: eating, sleeping, mating, and giving birth
- ◆ Come to the ground once a week to urinate and defecate
- ◆ No immediate danger of extinction but habitat destruction is a concern
- J Sloth's coat has a greenish cast due to algal growth on the skin. Algae helps camouflage the sloth and contains nutrients absorbed through the skin or by licking.



Takin

Where in the Zoo? Asian Trail

Scientific Name: *Budorcas taxicolor*

Range & Habitat: China and along the eastern Himalayas in Asia
Temperate forests and taiga (boreal forests)

- ◆ Their coat is two layers, underneath thick and warm, with the outer coat oily to help keep them dry.
- ◆ Takin are agile animals that can jump as high as 6 feet.
- J The snout contains large sinus cavities that warm the air before it reaches the lungs.



Tamarin, Cotton-headed

Where in the Zoo? Tropics Building

Scientific Name: *Saguinus oedipus*

Zoo Name: Neo, Georgie, Maya and Harold

Range & Habitat: Central America, Costa Rica, Panama,
NW Columbia

Tropical forests, open woodlands

- ◆ Rarely climb more than 100 feet, move through trees with quick and jerky movements
 - ◆ Calls consist of whistles, screeches, squeaks and warble some are too high-pitched for humans to hear
 - ◆ Endangered since 1976, hunted for pet trade, research labs and suffer from loss of habitat.
- J** Males carry babies until they are large enough to get around on their own.





Tiger, Amur

Where in the Zoo? Asian Trail

Scientific Name: *Panthera tigris altaica*

Zoo Name: Vaska, Nikita, Sasha, Maxim, Luka

Range & Habitat: Eastern Russia, Northeastern China and
N. Korea

Forests and bush covered mountains

- ◆ Can eat up to 40 pounds of meat in one sitting
- ◆ Critically endangered/ Species survival plan
- J Biggest cats in the world, males can reach lengths of 11 feet and weigh over 600 pounds

Wallaby, Bennett's

Where in the Zoo? Australian Walk-Through

Scientific Name: *Macropus rufogriseus fruticus*

Range & Habitat: Eastern Queensland to southeastern South Australia, Tasmania, and islands in the Bass Strait

Eucalyptus forests and tall, coastal heath

- ◆ Bennett's wallabies were introduced to Great Britain in 1940, and can still be found in Northern England and Scotland
- ◆ There are 8 different sub-species of wallaby
- ◆ Marsupials are named for their pouch which is called a marsupium



Wallaby, Parma

Where in the Zoo? Australian Walk-Through

Scientific Name: *Macropus parma*

Range & Habitat: New South Wales

Rainforests and forests with dense understory and grassy areas

- ◆ The difference between a wallaby and kangaroo is size, kangaroos are generally larger.
- ◆ The long tail helps with balance as they hop.
- ◆ Females can produce 2 types of milk, one for newborns and one for young who are weaned.

ZEBRA, GREVY'S

Where in the Zoo? Africa

Scientific Name: *Equus grevyi*

Zoo Name: Phoebe & Hogan

Range & Habitat: S.E. Ethiopia, Kenya, and Somalia
Dry desert region and open grassland

- ◆ Stripes help camouflage and break up outline of zebra especially when viewed through bushes. Motionless zebras are nearly invisible to the human eye at night from (5 to 15 meters) away.
- ◆ Adapted well to desert-like habitat of extreme heat and drought, can survive for several days without eating or drinking
- ◆ New born zebras have a critical imprint period during which they must learn to recognize their Mother. Mother's are very pro-



Zebu

Where in the Zoo? Animal Contact Area

Scientific Name: *Bos taurus indicus*

Zoo Name: Zoe

Range & Habitat: East Asia, India, Africa

- ◆ Carry a large fatty hump over its shoulder
- ◆ More sweat glands better adapts them for hot environments and increase their pest resistance
- J Known as the "Sacred Cattle of India" and allowed to roam the streets and villages

Reptiles



Alligator, Chinese

Where in the Zoo? Conservation Center

Scientific Name: *Alligator sinensis*

Zoo Name: Sparky

Range & Habitat: Lower Yangtze Valley of China
Areas with permanent water
(i.e. Ditches, ponds, reservoirs)



Reptiles

- ◆ Life expectancy is 50 years or more
- ◆ Endangered due to poaching and loss of habitat (decreased by 90%)
- J Distinguished from crocodile by the fourth tooth on the lower jaw which can't be seen when alligators mouth is shut but can be seen on crocodile



Boa, Common

Where in the Zoo? Tropics Building

Scientific Name: *Boa constrictor constrictor*

Range & Habitat: S. Mexico, Columbia, Venezuela, Ecuador, Bolivia, Brazil, Paraguay, parts of Peru, Argentina, and islands including Trinidad
Rainforests

- ◆ Boa constrictors are excellent swimmers and spend a lot of time in or near rivers
- ◆ Threatened boas hiss loudly and can be heard 100 feet away
- ◆ Boa numbers are dropping due to habitat destruction and hunting for skin and food
- J Squeeze prey until it can't breathe and then swallow meal whole

Boa, Dumeril's Ground

Where in the Zoo? Tropics Building

Scientific Name: *Acrantophis dumerili*

Range & Habitat: Southwestern Madagascar
Dry open deciduous forest

- ◆ Average length is five feet but some grow up to eight feet in length
- ◆ Endangered species since 1977 due to habitat destruction
- J Beautiful patterns help it hide from its prey and its enemies.

Boa, Madagascar Tree

Where in the Zoo? Treetops in Africa

Scientific Name: *Sanzinia madagascariensis*

Range & Habitat: Lives throughout the island of Madagascar
In forests, from lowland tropical and dry forests to humid upland forests

- ◆ Young are born about 10 inches long and are red in color. They gradually change to their adult coloring throughout their first year
- ◆ Endangered species since 1977 due to habitat destruction
- J Beautiful patterns help it hide from its prey and its enemies.

Gecko, New Caledonia Giant

Where in the Zoo? Tropics Building

Scientific Name: *Rhacodactylus leachianus*

Range & Habitat: New Caledonia (island off East coast of Australia)

Forests and mountains of New Caledonia

- ◆ Able to lose and regenerate tail to escape predators
- J World's largest gecko, with a body length of up to 9.5 inches



Gecko, Standing's Day

Where in the Zoo? Tropics Building

Scientific Name: *Phelsuma standingi*

Range & Habitat: Madagascar

Tropical dry forest



- ◆ Communicate with a range of squeaks, clicks, and croaks sounding more like a frog
- ◆ Vulnerable due to habitat destruction'
- J Adhesive' toes allow geckos to climb vertically on any surface, even if it is smooth.

Gila Monster

Where in the Zoo? Tropics Building

Scientific Name: *Heloderma suspectum suspectum*

Range & Habitat: Southwestern United States and N. Mexico
Desert scrub, arid grasslands, dry juniper oak woodlands

- ◆ 95% of the Gila monster's life is spent underground
- ◆ Population is suffering do to loss of habitat by agriculture and pet trade
- J Venom from glands in lower jaws flows into the wound as it chews on victim



Lizard, Beaded

Where in the Zoo? Tropics Building

Scientific Name: *Heloderma horridum exasperatum*

Range & Habitat: Mexico along Pacific Coast
Sub humid tropics to arid areas

- ◆ One of only two types of poisonous lizards contain venom glands in the lower jaw
- ◆ Endangered due to habitat destruction and over collection
- J Stores fat in its tail to live off of when food is scarce.



Milksnake, Pueblan

Where in the Zoo? Tropics Building

Scientific Name: *Lampropeltis triangulum campbelli*

Range & Habitat: Mexico to Southern Texas
Open arid areas

- ◆ Able to eat other snakes including venomous snakes
- ◆ Named for the old-wives tail that they milk cows
- J Among the most beneficial of snakes because they eat mice and rats

Python, Green Tree

Where in the Zoo? Tropics Building

Scientific Name: *Chondropython viridis*

Range & Habitat: Northern Australia, New Guinea and Surrounding Islands
Tropical rainforests, secondary growth, bamboo thickets

- ◆ Both sexes have spurs; claw like structures on the sides of the vent
- ◆ Young are born a different color (usually yellow) and change to green as they grow up
- ◆ There are no specific threats to this species

J Well known for “caudal luring” (sitting on a branch dangling the tail until prey becomes curious and then the snake strikes)



Python, Spotted

Where in the Zoo? Tropics Building

Scientific Name: *Antaresia maculosa*

Range & Habitat: East Coast of Queensland in Australia and Islands
Dry, wet forests, cane fields, rocky outcroppings

- ◆ Spotted python sometimes confused with closely related Children's python
 - ◆ Pattern mutation of tiny dark speckles
- J** Sometimes found around human dwellings because they are docile and eat rats

Skinks, Prehensile-tailed

Where in the Zoo? Conservation Center

Scientific Name: *Corucia zebrata*

Range & Habitat: Solomon Islands near Australia
Tropical rainforests

- ◆ Spend little or no time on the ground, usually found in the oldest trees of the primary forest
- ◆ Not threatened
- ◆ Have long prehensile tails that help them climb
- ⓐ Can drop their tail to escape predators but unlike other lizards they do not grow back



AZA Species Survival Plan®



Tortoise, Aldabra

Where in the Zoo? Africa

Scientific Name: *Geochelone gigantean*

Zoo Name: George

Range & Habitat: Coral tip of Aldabra between the coast of Kenya and N. Madagascar, introduced to Seychelles island to save the species from extinction

Scrubland near water holes

- ◆ Life Expectancy is 100 -200 years
- ◆ Tortoises pick up their entire shell when they walk, while turtles drag the back of their shell
- ◆ Vulnerable but protection has increased numbers
- J The tortoise is extremely slow moving and can grow to weigh up to 600 pounds

Tortoise, Galapagos

Where in the Zoo? Asian Trail

Scientific Name: *Geochelone elephantopus*

Range & Habitat: Galapagos Islands

Driest and flattest parts of the islands with succulent plants

- ◆ Can grow to be 500 pounds on larger islands
- ◆ The Galapagos Tortoise is an endangered species
- J Life expectancy is 100 to 200 years



Tortoise, Pancake

Where in the Zoo? Treetops in Africa

Scientific Name: *Malacochersus tornieri*

Range & Habitat: Southern Kenya, Northern and Eastern
Tanzania

Arid scrub and savannah at altitudes
from 100' to 6000' feet

- ◆ Flexible shell moves in and out as they breath
- ◆ Very quick for a tortoise and hide in rock crevices to escape predators
- ◆ Spiky legs lock the Pancake tortoise into place once inside a crevice



AZA Species Survival Plans

Tortoise, Red-footed

Where in the Zoo? Tropics Building

Scientific Name: *Geochelone carbonaria*

Range & Habitat: Tropical lowlands of South America
Forests and savannas

- ◆ Males identify each other by a characteristic head movement
- ◆ Red-footed tortoise is abundant due to their ability to adapt to cleared land
- J During mating season, males head becomes bright red

Turtle, Alligator Snapping

Where in the Zoo? Tropics Building

Scientific Name: *Macrolemys temminckii*

Region & Habitat: Louisiana, Arkansas, Tennessee, Kentucky, Missouri, Kansas, Oklahoma, and Texas
Deep water of large rivers, canals, lakes, swamps, hatchlings and juveniles live in small streams

- ◆ Looks primitive, “dinosaur of the turtle world”
- ◆ Submerge for forty to fifty minutes before surfacing
- ◆ Main threat is humans who collect them for unique appearance or meat
- J Pink lure-like structure in the back of their mouth wiggles to attract small fish in to be eaten



Turtle, Spotted

Where in the Zoo? Conservation Center

Scientific Name: *Clemmys guttata*

Range & Habitat: Southern coast of Maine along East coast to Georgia and S. Ontario west to Illinois
Marshy meadows, bogs, swamps, ponds, ditches, or small bodies of water

- ◆ Submerge and spend the night on the pond bottom
- ◆ Endangered in Illinois and Ohio, threatened in Maine and Vermont due to habitat destruction and pet collecting
- J Commonly called the “Polka-dot turtle”

Application of State Standards to Your Self-Guided Tour

Several of the State education standards may be met by using the self-guide teacher's manual. In addition, several other education goals can be met with pre-visit and post-visit classroom activities.

- ◆ State Goal # 1: Read with understanding and fluency
 - A. Apply word analysis and vocabulary skills to comprehend selections
 - B. Apply reading strategies to improve understanding and Fluency
- ◆ State Goal # 4: Listen and speak effectively in a variety of situations
 - A. Listen effectively in formal and informal situations
- ◆ State Goal # 5: Use the language arts to acquire, assess and Communicate information.
 - A. Locate, organize, and use information from various sources to answer questions, solve problems, and communicate ideas.
- ◆ State Goal # 6: Demonstrate and apply a knowledge and sense of numbers, including numeration and operations (addition, subtraction, multiplication, division), patterns, ratios and proportions.
 - B. Investigate, represent and solve problems using number facts, operations (addition, subtraction, multiplication, division) and their properties, algorithms and relationships.
 - C. Compute and estimate using mental mathematics, paper-and-pencil methods, calculators and computers.

State Standards Continued



- ◆ State Goal # 11: Understand the processes of scientific inquiry and technological design to investigate questions, conduct experiments, and solve problems.
 - A. Know and apply the concepts, principles, and processes of scientific inquiry.

- ◆ State Goal # 12: Understand the fundamental concepts, principles, and interconnection of the life, physical and earth/space sciences.
 - A. Know and apply the concepts that explain how living things function, adapt and change.
 - B. Know and apply concepts that describe how living things interact with each other and with their environment.
 - E. Know and apply concepts that describe the features and processes of the Earth and its resources.
- ◆ State Goal # 13: Understand the relationships among science technology and society in historical and contemporary contexts.
 - A. Know and apply the accepted practices of science.
 - B. Know and apply concepts that describe the interaction between science, technology and society.

Pre/Post Educational Activity Ideas

Warning

- Discuss why some animals have warning colors instead of trying to camouflage themselves.
- Ask students to watch for warning colors they find in every day life.
- Ask students to write a short essay discussing all of the warning colors they discovered and why they are used.
- You may also ask your class to vote on a unified warning color to wear for their trip to the zoo to aid in keeping your students together and easily identifiable as a group.

Create your Own

- Have students draw an animal (real or created) that lives in an extreme environment (deserts, arctic).
- Then have students label or present adaptations and explain how the animal uses them to survive.

IL. Education Standards: 4.B.2a; 5.A.2a-b; 5.B.2a-b;

5.C.

2a-b;

17.B.2b; 26.B.2d; 5.A.3a; 5.B.3a-b; 5.C.3a-c; 17.B.3b;

26.B.3d

Food Chain

- Materials needed: strips of paper approximately 8" long,
- Markers/crayons, tape or glue
- Student write down on the strips of paper the names of things they might find in a food chain . (i.e. sun, plant, insect, mosquito, bat)
- Working alone or in pairs, ask students to fasten the strips of paper together in a chain form in the order the food chain would occur.
- Ask students to explain their food chain and then display in the classroom.

IL Education Standards: 4.A.1a-b-c; 4.B.1a-b; 12.B.1b; 26.B.1d

Scavenger Hunt

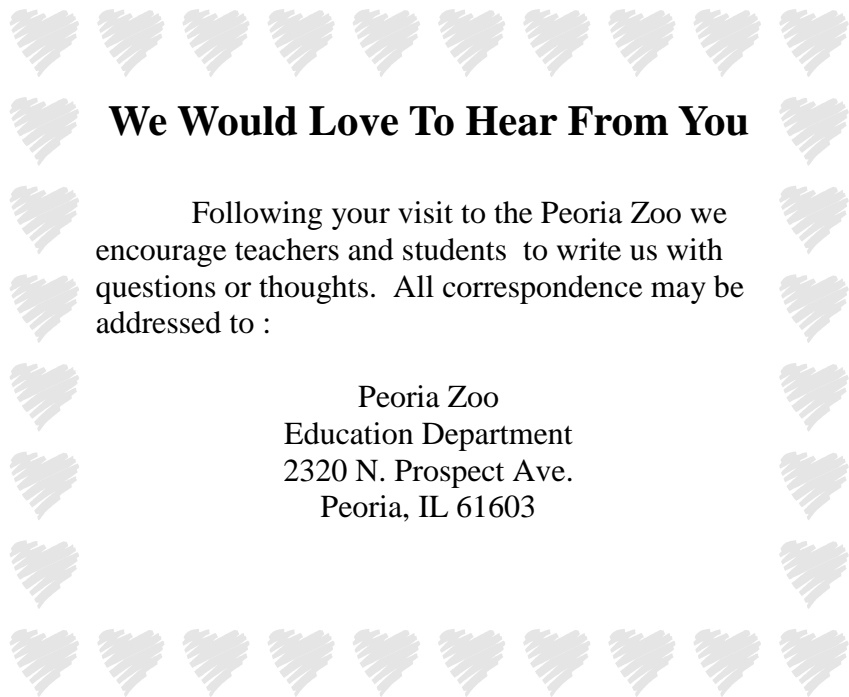
- Design a scavenger hunt of adaptations (i.e. webbed feet, striped fur, sharp claws, wings, scales etc.)
- See back pages for a scavenger hunt you can adapt for your students
- Have students bring the sheet to the Peoria Zoo on their field trip to identify animals with the adaptations.

IL Education Standards: 12.A.2b; 12.B.2b; 12.A.3c; 12.B.3b

Who's Who

- Ask students to bring in one or two small stuffed animals from home, or use small plastic animals.
- Present and discuss with students they different types of covering animals have (scales, fur, feathers)
- Ask students to separate animals into groups and discuss why each animal belongs to that particular group.

IL. Educations Standards: 4.A.1a,b,c,d; 4.B.1b; 11.A.1e; 12.A.1b;



We Would Love To Hear From You

Following your visit to the Peoria Zoo we encourage teachers and students to write us with questions or thoughts. All correspondence may be addressed to :

Peoria Zoo
Education Department
2320 N. Prospect Ave.
Peoria, IL 61603

What monkey uses its tail to swing through the trees and hang upside down?

Name a lizard that uses color to hide.

Meerkats have something under their eyes to help keep the bright sun out. What is it?

What bug uses a stinger to defend itself?

Which black and white monkey uses its loud voice to warn others of danger (you may have heard them at the zoo)

Name one of the two venomous lizards in the world.

Which is the only mammal that can fly and which part of its body does it use to hang upside down?

How does a porcupine protect itself? What color are the porcupines in the zoo?

How does a tarantula defend itself?

Find an animal that has a shell for protection. What other animals does it live with?

What is a rhinoceros horn made of?

How many vertebrae does a giraffe have?

Belching is considered polite in what animal family?

What is the largest animal (in weight) at the Zoo?

What male bird seals the female in a tree with the eggs and keeps her there until the young are ready to fledge?

What is the largest naturally occurring big cat in the world?

What amphibian communicates by waving its arms rather than by sound?

How does a vinegaroon defend itself?

These birds are called the bushman's clock because they make the most noise at dawn and dusk.

What animal has an 18 inch tongue?

What monkey uses its tail to swing through the trees and hang upside down? **Spider Monkey**

Name a lizard that uses color to hide. **Prehensile-tail skink/New Caledonian gecko**
Meerkats have something under their eyes to help keep the bright sun out. What is it?
Black stripes-they help reflect the sun and block it from their eyes

What bug uses a stinger to defend itself? **Emperor Scorpion**

Which black and white monkey uses its loud voice to warn others of danger(you may have heard them at the zoo) **Black and White Ruffed Lemur**

Name one of the two venomous lizards in the world. **Mexican Beaded Lizard or Gila Monster**

Which is the only mammal that can fly and which part of its body does it use to hang upside down? **Bat- uses their feet**

How does a porcupine protect itself? What color are the porcupines in the zoo? **Porcupines use quills-they are black and white to stand out so no one bothers them**

How does a tarantula defend itself? **It flicks the hairs off its back, which is an irritant to distract the predator long enough for the tarantula to get away.**

Find an animal that has a shell for protection. What other animals does it live with?
The Red Footed Tortoise lives with the iguana and boas and the alibaba tortoise lives with the porcupines

What is a rhinoceros horn made of? **Keratin or tightly compacted hair**

How many vertebrae does a giraffe have? **7, the same number as humans**

Belching is considered a polite way to greet each other in what animal family?
Colobus Monkey

What is the largest animal (in weight) at the Zoo? **White Rhinoceros-a full grown male can weigh up to 6000 pounds**

What male bird seals the female in a tree with the eggs and keeps her there until the young are ready to fledge? **Blythe's Hornbill**

What is the largest naturally occurring big cat in the world? **Amur Tiger**

What amphibian communicates by waving its arms rather than by sound? **Golden Frog**

How does a vinegaroon defend itself? **Sprays a vinegar type liquid at its predators.**

These birds are called the bushman's clock because they make the most noise at dawn and dusk. **Kookaburras.**

What animal has an 18 inch tongue? **Giraffe**