Homer Lake Interpretive Center
School Group – Self-Guided Field Trip

Welcome! This booklet has been designed to help teachers, chaperones and students prepare for a self guided visit to the Homer Lake Interpretive Center and to enhance the educational value and enjoyment of your visit.

This packet contains:

- How to schedule your visit
- Preparing for your visit
- Directions
- Brief description of exhibits
- Activities to do at the Interpretive Center including worksheets
- Information about our resident animals

We hope you'll find this information useful and easy to incorporate into your curriculum. We welcome and value your comments, suggestions and/or questions concerning this packet.

Sincerely,
Homer Lake Interpretive Center Staff

Scheduling Your Visit

Please contact the Homer Lake Interpretive Center at least two weeks before you would like to visit the Center. Please contact Stacey at 217-896-2455 or e-mail sclementz@ccfpd.org.

If several classes from one school are attending together, please assign one teacher to act as lead teacher with Homer Lake Interpretive Center staff throughout the scheduling process.

When scheduling your visit, be prepared with the following information:

- Your desired date
- Alternate date(s)
- Your school's phone number
- Your grade level
- Total number of classes
- Expected number of students
- Lead teacher's contact information: cell phone, email address
- Accommodations needed for students with special needs
- Whether or not you will want to eat lunch before or after your visit

Preparing for Your Visit

Visit Before Coming

We encourage you to visit the Homer Lake Interpretive Center before your self guided trip. Our hours are:

April-October Monday-Friday, 8:30am-5:00pm, Saturday, 10:00am-4:00pm
November-March Monday-Friday, 8:30am-5:00pm
We are closed on federal holidays
*Please note that the Center may be occasionally closed when staff are out teaching programs.

Behavior Expectations

Please review the following expectations with your students and chaperones:

- Students will stay with their chaperones
- Students will be courteous and respectful of other visitors
- Students will treat the District property with care
- Students will respect the plants and animals in the preserve; do not pick plants or pull leaves from trees, do not collect animals, do not take home natural items from the preserve, place garbage in proper receptacles

Building Capacity

The maximum capacity of the building is 30 students at one time. To have room for the students to move around the building while doing activities, we recommend no more than 8 students at a time in the building. There are many things to do in the forest preserve while waiting to come in to the Interpretive Center. (See below)

Parking

Parking for the Homer Lake Interpretive Center is immediately to the southwest of the Center. Buses can drop students off at the front of the building but will need to park at Maple Sugar Grove. Directions will be provided to bus drivers when they drop students off.

Picnic facilities and Restrooms
Picnic tables are available around the Interpretive Center to use for lunch and snacks. There are restrooms located in the building.

Drinking Water
Water is available inside the Interpretive Center. Please have your students bring water bottles if spending the day at the preserve.

Accessibility
The Center is wheelchair accessible. Signage is accommodated where possible to persons with low vision. Tactile and audio experiences are incorporated into most exhibits.

Chaperones
Teachers and chaperones should be with students at all times. Please provide one chaperone for every 10 students.

Cancellations
If you must cancel for any reason, please contact the Homer Lake Interpretive Center at 217-896-2455.

Directions:
The Center is located at 2573 S. Homer Lake Road, just inside the entrance to Homer Lake Forest Preserve.

From I-74: Take exit 197, and turn south toward Ogden. Go straight through the 4-way stop sign in Ogden. About 2 miles south of Ogden, turn right (look for a small brown sign that says 'Homer Lake'). Take the first left. The entrance to Homer Lake Forest Preserve will be on your right about a half mile down the road.

Traveling East on US 150 from Urbana: Go through St. Joseph. At the 4-way stop in Ogden, turn right. About 2 miles south of Ogden, turn right (look for a small brown sign that says 'Homer Lake'). Take the first left. The entrance to Homer Lake Forest Preserve will be on your right about a half mile down the road.

Traveling West on US 150 from Danville: At the 4-way stop in Ogden, turn left. About 2 miles south of Ogden, turn right (look for a small brown sign that says 'Homer Lake'). Take the first left. The entrance to Homer Lake Forest Preserve will be on your right about a half mile down the road.

When You Arrive
Upon arrival at the Center a staff member will greet your group at the front of the building. They will welcome the group and brief them about rules that apply inside the Center.

What Else To Do in the Forest Preserve

- Timberdoodle Self Guided Trail (available on our website, www.ccfpd.org, and at the Homer Lake Interpretive Center)
- Homer Lake Natural Playscape (coming summer of 2012)
- 10 miles of trails (maps are available on our website, www.ccfpd.org, and at Homer Lake Forest Preserve)
    - Sand Beach Cove Trail 0.68 mile
    - Timberdoodle Trail 1.20 miles
    - Collins Pond Trail 0.64 mile
    - Flicker Woods Trail 0.94 mile
    - Oak Ridge Trail 1.90 miles
- Resources for Loan (For more information please visit www.ccfpd.org)
  The Homer Lake Interpretive Center offers loan boxes and backpacks. Each are self-contained teaching units that are designed to supplement classroom activities. Each contains activities, tools, field guides and props for both indoor and outdoor activities. For more information or to reserve a loan box/backpack please contact Stacey at sclementz@ccfpd.org or 217-896-2455.
    - Discovery Backpacks
        - $75 refundable deposit
    - Insect Backpack
        - $15 refundable deposit
    - Water Quality Loan Box
        - $10 fee and $15 refundable deposit
    - Aquatic Invasive Species Loan Box
        - $15 refundable deposit
    - Bird Adaptation Loan Kit
        - $25 refundable deposit
    - GPS units
        - There is no fee, but we do require that you leave the number for a credit card OR a blank, signed check. You will not be charged unless the GPS unit is damaged or lost.

Exhibits at the Interpretive Center

Exhibit Central Theme:
Homer Lake Forest Preserve holds many treasures of nature and history that both inform and impact the greater story of the Grand Prairie.

Exhibit Objectives:
- Visitors will be able to name at least 3 ways that Homer Lake is unique
- Visitors will be able to describe the Grand Prairie, or components of it, and how they impact or are impacted by it
- Visitors will observe native flora and fauna of the Grand Prairie

Outside the Interpretive Center
Native plant beds
Each species of native plants have a sign giving brief information about it. Species include both woodland and prairie plants.

Inside the Interpretive Center
In the Hallway
- Mother Nature's Treasures
  At the District, we do not allow people to take natural objects from the preserves. Everything in nature has a purpose, even when we think that its uses are finished. Without human disturbance, these materials will be recycled and will continue to produce new life.
  This exhibit is a place for people to share the "treasures" they have found out in the forest preserve with the assurance that they will be returned to the wild.

- Bookshelf
  This bookshelf provides opportunity for adults and children to explore nature-themed children's books at their leisure. These items are also available for loan to parents and teachers.

- Be a Bird
  Use fabric sticks to create a human size bird nest.

- Scat Game
  This popular game invites children and adults to match the scat with its originator by reading clues. Lights indicate correct choices.

- Taxidermy Diorama
  This diorama houses many taxidermied animals as well as local dried and artificial plants. Taxidermied animals include: coyote, red fox, American coot, Belted Kingfisher, Veery, Yellow-bellied sapsucker, Yellow-billed cuckoo

- Taxidermy displayed in hallway: Red-tailed hawk, rough legged hawk, sharp-shinned hawk, great horned owl, bufflehead, Canada goose

Discovery Den Exhibit Room

Prairie Habitat Area

- The Upside Down Forest Display
  This display pictures prairie plant roots and shows how the roots of blazing star, compass plant, Indian grass, goldenrod and Kentucky bluegrass compare to that of a human.

- Eastern box turtles & Western fox snake
  Observe live animals native to the prairie habitat

- Mammals of the Prairie exhibit
  Hands on exhibit with the skull and furs of the American Bison, American Elk, Coyote, Red Fox and American Badger

- Bird Observation Area
  Relax on the bench and use binoculars to observe birds in our bird feeder area. An outdoor microphone also transmits bird sounds into the Discovery Den.

Forest Habitat Area

- Match the Wood to the Tree
  Match the pieces of wood to the type of tree it came from.

- Look Inside a Maple Tree
  A small cross section of a maple tree opens to show the bark, phloem, cambium, xylem, sapwood, and heartwood of the tree.

- The Forest is My Home Sweet Home display
  This display case includes taxidermy of a fawn, cardinal, chipmunk, swainson's thrush, mink, American goldfinch and nest, barn swallow, ruby-throated hummingbird, and a northern oriole nest

- Opossum playhouse
  This small puppet theater is perfect for two to three children to put on a play using the provided native animal puppets.

- Life-size tree replica
  This is a plaster tree that is built from the floor to the ceiling with branches coming out from the ceiling. There is a hole in the trunk for children to place animal puppets inside.

Aquatic Habitat Area

- Red-eared Slider & Painted turtle
  Observe live animals native to aquatic habitats

- Yellow bullhead catfish
  Observe live animals native to aquatic habitats

- Aquatic Turtles of Illinois Display

Included in this display are a snapping turtle shell, replica snapping turtle foot, snapping turtle scute, rib and skull and a pond turtle skull and skeleton

Kids Nook

- The kids' nook area includes a hands-on underground display, mystery boxes, scavenger hunt sheets for inside the Interpretive Center and various natural objects.

Activities to do at the Homer Lake Interpretive Center

Below are possible activities that your students can do in the Homer Lake Interpretive Center. We have recommended the grade of the student for each of the activities. These are just suggestions; feel free to adapt the activities to your students. Please let us know how we can assist you.

Investigate at each animal's exhibit: (Kindergarten-6th grade)
Illinois State Standards: 11A, 12A, 12B
Before your visit, go over with your students the information on each of the animals housed at our Interpretive Center.
At the Interpretive Center, allow your students to answer the following questions.

- What does it eat? What are its teeth like? Ask students if they believe each animal they visit is an herbivore, carnivore, or omnivore.
- What would eat the animal?
- Where are its eyes? If it is on the side of its head, it is most likely a prey species. Eyes on the side of the head help the animal to see all around, and detect predators. If they are in the front of the head, the animal is most likely a predator. Eyes in the front allow the animal to see how far away its prey is.
- Where would it live in the wild?
- How does it move around? Does it have long legs for hopping, does it have wings to fly, fins for swimming…
- Have students observe the animals in their exhibits and decide what they spend most of their time doing. Judging by your observations, what, if anything, could be added to the animals' habitats to make them more comfortable?

Bird Adaptations (Kindergarten-8th grade)
Illinois State Standards: 12A, 12B
Birds have different types of beaks, eggs and feet to adapt to their unique lifestyles. Displayed throughout the Interpretive Center are many taxidermied bird species. Take your students around pointing out the different adaptations of each bird. Use the attached bird feet and bird beak sheets to assist you with this activity.

- Bird Beaks
  Birds must rely on their beaks to carry out many different tasks.
  The number one use for the beak is to gather or capture food. However, birds also use beaks to pick up building materials and construct their nests. But birds use beaks for even more. When they have to, birds use beaks and feet as weapons to defend themselves, their nests, and their chicks. Birds use beaks for drinking, feeding their young, and preening.
  Some birds, like the American White Pelican, even grow special structures on their beaks during breeding season to make themselves more attractive.
  Beaks come in a wonderful assortment of shapes and sizes, each perfectly suited for that particular bird's favorite foods and typical feeding behaviors.
- Bird Feet
  Birds use their feet for many important activities, including:
  - swimming
  - catching prey

- walking
- perching
- wading
- climbing

To further the experience for your students you can check out our Bird Adaptations Loan Kit. Our loan kit can enhance your lessons on bird adaptations. Included are replicas of bird skulls, eggs, and tracks. This kit is appropriate for grades K-12. We will waive the $25 deposit if using the kit in the Interpretive Center. You will still need to sign the loan policy form.

Living vs. Non-living (2nd grade and up)
Allow your students ten minutes to find examples of living and non-living things in the Interpretive Center. Have them write the items down in two columns on a piece of paper. Challenge them to choose three items from each category and describe their roles in the environment.

Game: look, describe, find (Kindergarten and up)
Illinois State Standards: 12A
Have one person in your group choose an animal or natural object in the Interpretive Center but have them keep it a secret. Have them describe it to the others and allow them to guess it.

Opossum Playhouse (Kindergarten-2nd grade)
Illinois State Standards: 25A, 26A, 26B,
Assign two or three students to put on a play for the rest of the class using the native animal puppets.

Journaling Activities (Kindergarten and up)

- Have your students write stories from the perspective of one of our resident animals.
- At the bird observation area, have your students watch and listen to what is happening at the bird feeders. Have them write or draw what they are seeing and hearing.
- Have the students write a poem about something they see in the Interpretive Center
- Draw your favorite exhibit or animal found in the Interpretive Center
- Take your students to the picnic tables outside of the Interpretive Center. Have them write or draw what they observe in the out of doors.
- Poetry is a great way for students to express their ideas about the environment. Allow the students to choose a natural area to sit outside of the Interpretive Center. Have your students write descriptive words about how the area makes them feel, what they smell, what they see and so on. Have the students use these words to create a poem.
  In the Interpretive Center library, we have *Insectlopedia* by Douglas Florian. This book has twenty one poems about insects. This is a great book to give students ideas of how to write their poems.

Explorer's Guide

Self-guided visit

Teacher/Chaperone Answer Key

This activity is designed for grades 4 and up.

Instructions:
Review the questions in this guide before you visit the Interpretive Center. You should be able to find all the answers as you tour the Center if you carefully observe the animals and read signs and labels. The headings above the questions are the titles of the displays throughout the Interpretive Center. Good luck and enjoy your visit!

Gateway to the Prairie & the Upside-Down Forest

1. What does the prairie offer us?
   Some of the richest soil in the world
   Rich history
   Most species diversity in the Midwest
   Dazzling sunsets and starry skies

2. Why is it called the Upside-Down Forest?
   If the prairie was upside down you would be walking through a dense thicket of roots reaching above your head

3. How deep can prairie roots grow?
   Over 15ft. deep

4. How do deep roots help the prairie?
   Help water infiltrate into the ground which reduces flood and rainwater runoff
   Roots store carbon helping to offset global climate change

5. Which prairie plant grows some of the longest roots?
   Cylindrical blazing star

Western Fox Snake

1. What does our fox snake eat?
   Once mouse per week

2. What do western fox snakes eat in the wild?
   Small mammals, bird eggs and nestlings

3. What habitat do western fox snakes live in?
   Prairie and cultivated fields

4. How do western fox snakes scare their predators?

Imitates a rattlesnake by vibrating their tail against grass and leaf litter

5. Observe the fox snake in its exhibit and decide what it spends most of its time doing. Judging by your observations, what items in its enclosure can be found in its natural habitat?

Eastern Box Turtles

1. How do you tell the difference between male and female box turtles?
   Look at their eyes; males have brighter red eyes than females

2. What habitat do eastern Box turtles live in?
   Floodplains, moist prairies and forested areas

3. How long do box turtles live?
   30 to 40 or even 100 in captivity

4. What is the scientific name of the eastern box turtle?
   Terrapene carolina

5. Observe the box turtles in their exhibit and decide what they spend most of their time doing. Judging by your observations, what items in their enclosure can be found in their natural habitat?

Mammals of the Illinois Prairies

1. What does extirpate mean?
   Extinct from part of its original range

2. Which two animals on display are extirpated from Illinois?
   American bison and American elk

3. What is an American bison's hump made out of?
   Muscle and bone to hold up its massive head

4. When were American elk last seen in Illinois?
   1855

5. When are coyotes most active?
   Dusk until early morning hours

6. What do red fox eat?
   Mainly rabbits and mice

7. How are badgers built to live underground?
   Clear membranes over their eyes and small hairy ears to keep dirt out

Webbed toes to scoop out large “handfuls” of dirt

The Forest is My Home Sweet Home

1. Where does the ruby-throated hummingbird migrate for winter?
   Central America

2. What does a mink eat?
   Frogs, fish, crayfish, mice and bird eggs

3. What is special about a barn swallow?
   It can drink while it is flying

Painted Turtle and Red-eared Slider

1. What does a painted turtle eat in the wild?
   Plants, insects, mollusks and dead fish

2. What does a red-eared slider eat in the wild?
   When young it eats insects, mollusks and tadpoles
   As an adult it eats mostly plants

3. Where does a red-eared slider live in the wild?
   Streams and lakes with muddy bottoms

4. Observe the red eared slider and painted turtle in their exhibit and decide what they spend most of their time doing. Judging by your observations, what items in their enclosure can be found in their natural habitat?

Yellow Bullhead Catfish

1. What does a catfish use its barbells (“whiskers”) for?
   Taste and touch sensors that locate food in the dim light along the bottom of the lake or stream

2. How do catfish protect themselves?
   Sharp spines on their fins

3. Observe the catfish in its exhibit and decide what it spends most of its time doing. Judging by your observations, what items in its enclosure can be found in its natural habitat?

Aquatic Turtles of Illinois

1. What are scutes?
   Broad scales

2. How many scutes does a snapping turtle have on its carapace (top part of shell)?
   38 scutes

3. How old can a Blanding's turtle live?
   77 years old

4. What is a carapace made of?
   Modified ribs and spine

Explorer's Guide

Self-guided visit

Instructions:
Review the questions in this guide before you visit the Interpretive Center. You should be able to find all the answers as you tour the Center if you carefully observe the animals and read signs and labels. The headings above the questions are the titles of the displays throughout the Interpretive Center. Good luck and enjoy your visit!

Gateway to the Prairie & the Upside-Down Forest

1. What does the prairie offer us?

2. Why is it called the Upside-Down Forest?

3. How deep can prairie roots grow?

4. How do deep roots help the prairie?

5. Which prairie plant grows some of the longest roots?

Western Fox Snake

1. What does our fox snake eat?

2. What do western fox snakes eat in the wild?

3. What habitat do western fox snakes live in?

4. How do western fox snakes scare their predators?

5. Observe the fox snake in its exhibit and decide what it spends most of its time doing. Judging by your observations, what items in its enclosure can be found in its natural habitat?

Eastern Box Turtles

1. How do you tell the difference between male and female box turtles?

2. What habitat do eastern Box turtles live in?

3. How long do box turtles live?

4. What is the scientific name of the eastern box turtle?

5. Observe the box turtles in their exhibit and decide what they spend most of their time doing. Judging by your observations, what items in their enclosure can be found in their natural habitat?

Mammals of the Illinois Prairies

1. What does extirpate mean?

2. Which two animals on display are extirpated from Illinois?

3. What is an American bison's hump made out of?

4. When were American elk last seen in Illinois?

5. When are coyotes most active?

6. What do red fox eat?

7. How are badgers built to live underground?

The Forest is My Home Sweet Home

1. Where does the ruby-throated hummingbird migrate for winter?

2. What does a mink eat?

3. What is special about a barn swallow?

Painted Turtle and Red-eared Slider

1. What does a painted turtle eat in the wild?

2. What does a red-eared slider eat in the wild?

3. Where does a red-eared slider live in the wild?

4. Observe the red eared slider and painted turtle in their exhibit and decide what they spend most of their time doing. Judging by your observations, what items in their enclosure can be found in their natural habitat?

Yellow Bullhead Catfish

1. What does a catfish use its barbells ("whiskers") for?

2. How do catfish protect themselves?

3. Observe the catfish in its exhibit and decide what it spends most of its time doing. Judging by your observations, what items in its enclosure can be found in its natural habitat?

Aquatic Turtles of Illinois

1. What are scutes?

2. How many scutes does a snapping turtle have on its carapace (top part of shell)?

3. How old can a Blanding's turtle live?

4. What is a carapace made of?

Animals: Explore and Find

Teacher/Chaperone Answer Key

This activity is designed for grades 5 and up

Instructions:
Look around the Interpretive Center to find one or two animals in each category. You can find these animals in pictures, as taxidermy (stuffed animals) or living animals on display. Write down your answers. Good luck and enjoy your visit!

1. **An animal that lives in water**
   What is covering its body? How do you think it moves through the water?
   Frog
   Muskrat
   Yellow Bullhead Catfish
   Dragonfly nymph
   Red-eared slider
   Painted turtle
   Snapping turtle
   Beaver

   Most animals that live in the water have webbed feet, which would be like us wearing flippers. It helps the animals move through the water easily. Animals that have webbed feet are aquatic turtles, beavers, muskrats and frogs.
   Fish have fins that help them move through the water.
   Some animals use their tails to swim through the water like muskrat, beavers, fish, and turtles

2. **An animal with big ears**
   What do you think it uses its big ears for?
   Deer
   Coyote
   Red fox
   American elk
   American bison

   Animals use their ears to hear. So if a predator has large ears, like coyotes, it is using them to help them find their prey. If a prey animal has large ears, like deer, they use this to hear predators sneaking up on them.

3. **An animal with a tail**
   What do you think this animal uses its tail for? What other ways do animals use their tails?
   American bison
   American elk
   White-tailed deer
   Coyote
   Red fox
   Western fox snake
   Painted turtle
   Red-eared slider
   Box turtles
   Birds
   Yellow Bullhead Catfish
   Beavers

   Different animals have tails for different reasons.

Animals like coyotes and foxes use their tails to communicate. A ducked tail usually means fear, whereas an erect tail shows confidence.
Bison use their tails to swat flies away from their bodies.
Squirrels use their tails for balance.
Birds use their tails to stay balanced when not moving and move through the air when flying.
Aquatic animals, like beavers and fish use their tails like propellers to help move through the water with ease.

4. An animal that lives underground

How do you think this animal is able to live underground?

Chipmunk
Mole cricket
Woodchuck/groundhog
Mole
Badger
Ground squirrel
Cicada nymphs
Wasps
Worms
Snakes

Badgers and moles have webbed front feet that help them dig through soil.
Worms travel through underground tunnels or move about on the soil surface by using their bristles as anchors pushing themselves forward or backward using strong stretching and contracting muscles.
Mole crickets front legs are enlarged and shovel-like which are modified for digging.
Wasps that dig in the ground have long legs furnished with spine like hairs, by means of which they dig holes or brush away or smooth over the earth at the entrance to their nests. Sometimes they use their jaws not only to loosen the earth, but to remove it from the entrance to the nest.

5. An animal with antlers

Antlers are grown as out of the animal's skull. They are made of bone and are shed and regrown each year. Horns are made of two parts, an inner bone (also an extension of the skull) which is covered by an outer sheath grown by specialized hair follicles, as are your fingernails. Horns are never shed and continue to grow throughout the animal's life except for the pronghorn which sheds and regrows its horn sheath each year.
American elk & White-tailed deer have antlers
American bison have horns

6. A bird with talons

A talon is a sharp, hooked claw at the end of a bird's toe. Talons are most prominent on meat eating birds that need to catch and dismember prey.
Red tailed hawk
Rough legged hawk
Sharp-shinned hawk
Great horned owl

7. **An animal with scales**
   Scales are plates on reptiles skin that help hold in moisture and protect them.
   Snakes and turtles

8. **An animal with hooves**
   Some animals have hooves instead of claws or nails. A hoof is a covering of horn that protects the front of or encloses the ends of the toes of some mammals.
   Which animals in the Interpretive Center might have hooves as feet?
   White-tailed deer, American elk, American bison

Animals: Explore and Find

Instructions:
Look around the Interpretive Center to find one or two animals in each category. You can find these animals in pictures, as taxidermy (stuffed animals) or living animals on display. Write down your answers. Good luck and enjoy your visit!

1. **An animal that lives in water**
   What is covering its body? How do you think it moves through the water?

2. **An animal with big ears**
   What do you think it uses its big ears for?

3. **An animal with a tail**
   What do you think this animal uses its tail for? What other ways do animals use their tails?

4. **An animal that lives underground**
   How do you think this animal is able to live underground?

5. **An animal with antlers**
   Antlers are grown as out of the animal's skull. They are made of bone and are shed and regrown each year. Horns are made of two parts, an inner bone (also an extension of the skull) which is covered by an outer sheath grown by specialized hair follicles, as are your fingernails. Horns are never shed and continue to grow throughout the animal's life except for the pronghorn which sheds and regrows its horn sheath each year.

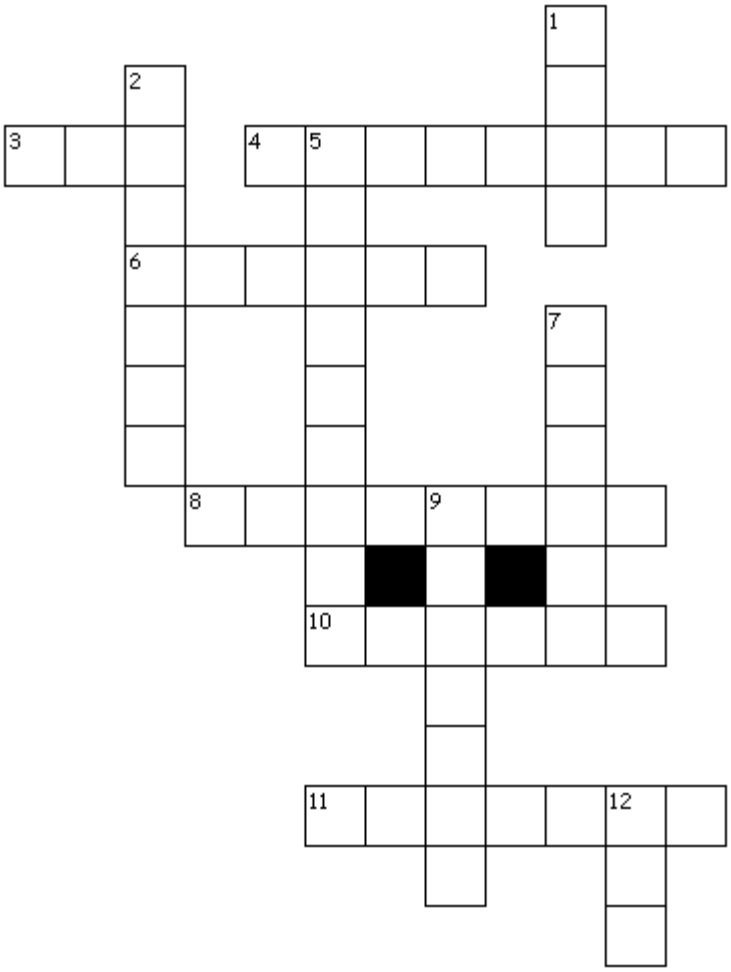
6. **A bird with talons**
   A talon is a sharp, hooked claw at the end of a bird's toe. Talons are most prominent on meat eating birds that need to catch and dismember prey.

7. **An animal with scales**
   Scales are plates on reptiles skin that help hold in moisture and protect them.

8. **An animal with hooves**
   Some animals have hooves instead of claws or nails. A hoof is a covering of horn that protects the front of or encloses the ends of the toes of some mammals.
   Which animals in the Interpretive Center might have hooves as feet?

Homer Lake Interpretive Center Crossword Puzzle

You can find all the answers as you tour the Interpretive Center if you carefully read signs and labels. Good luck and enjoy your visit!



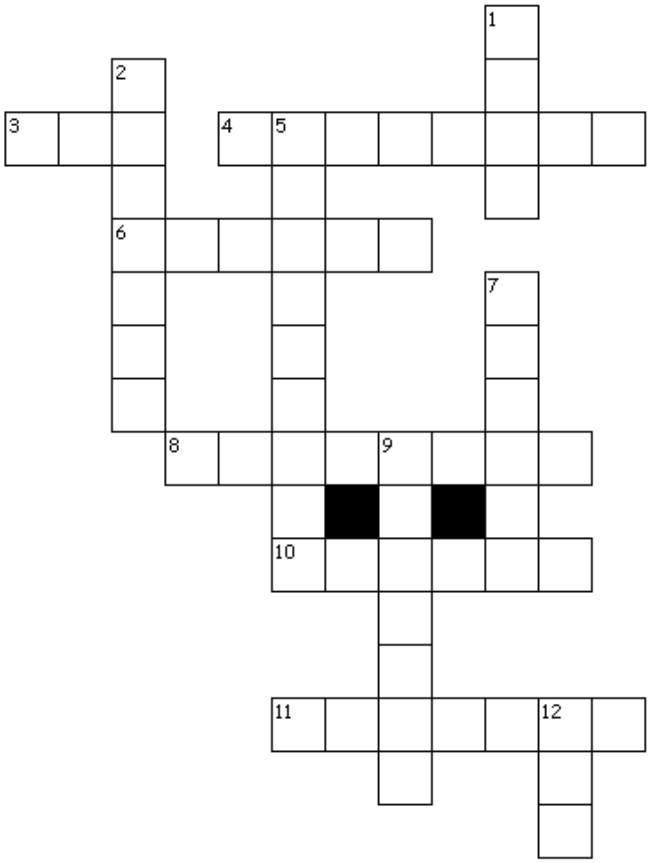
Across
3. Adult bison can weigh up to _____ thousand pounds.
4. Badgers are most common in the _____ half of Illinois.
6. Adult red-eared sliders eat mostly _____.
8. A turtle's _____, or top shell, is made up of ribs and a spine.
10. Catfish do not have _____ to protect them; instead they have sharp spines on their fins.
11. The _____ turtle is the state reptile of Illinois.

Down
1. Our fox snake eats one mouse every _____.
2. The _____ plant is named for its huge leaves that often point north to south.
5. Box turtles are _____, eating fruit, fungi and invertebrates.
7. A bison's hump is made up of _____ and bone.
9. Fox snakes habitat includes cultivated fields and _____.
12. _____ were last seen in Illinois in 1855.

Homer Lake Interpretive Center Crossword Puzzle Answer Sheet

This activity is designed for grades 2 and up

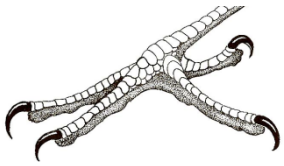
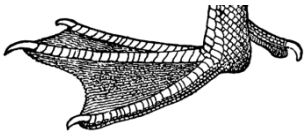
You can find all the answers as you tour the Interpretive Center if you carefully read signs and labels. Good luck and enjoy your visit!



Across
3. Adult bison can weigh up to two_____ thousand pounds.
4. Badgers are most common in the northern_____ half of Illinois.
6. Adult red-eared sliders eat mostly plants_____.
8. A turtle's carapace_____, or top shell, is made up of ribs and a spine.
10. Catfish do not have scales_____ to protect them; instead they have sharp spines on their fins.
11. The painted____ turtle is the state reptile of Illinois.

Down
1. Our fox snake eats one mouse every week_____.
2. The compass_____ plant is named for its huge leaves that often point north to south.
5. Box turtles are omnivores_____, eating fruit, fungi and invertebrates.
7. A bison's hump is made up of muscle___ and bone.
9. Fox snakes habitat includes cultivated fields and prairie_____.
12. Elk____ were last seen in Illinois in 1855.

Types of Bird Feet

Shape of Foot	Type of Foot	Adaptation	Examples
	Climbing	Two toes pointing forwards and two backwards; for climbing up, down, and sideways on tree trunks	Woodpeckers
	Swimming	Webbing between toes to paddle through water	Ducks
	Perching	Flexible toes, with one pointing backwards, ideal for grasping perches	Robins, jays, starlings, cardinals
	Grasping	Large claws (called talons) that capture, kill, and carry prey	Eagles, hawks, owls
	Scratching	Strong feet used to scratch the dirt and leaf litter to uncover seeds and insects	Pheasants, Chickens

Types of Bird Beaks

This is a just a small selection of the many types of bird beaks that exist.

Type of Beak	Adaptation	Examples
	A cone shaped bill used for cracking seeds.	Finches, Cardinals, Grosbeaks
	Thin, slender, pointed beak used to pick insects off leaves, twigs, and bark.	Warblers
	Strong beaks which taper to the tip used for pecking holes for food and nests.	Woodpeckers
	Long, tubular bills used to sip nectar from flowers.	Hummingbirds
	Sharp hooked beaks to catch and kill prey.	Birds of prey; hawks, owls, eagles
	Edge of beak fringed to catch and hold invertebrates from the water.	Diving ducks; bufflehead, canvasback, common goldeneye

Live Animals at the Interpretive Center

Eastern Box Turtles

Individual animal's history:

We have both a female and male eastern box turtles.
The female box turtle has been at Homer Lake longer than any other employees! She arrived before 1996 and is the oldest animal we have. She was a pet, but her owners were unable to care for her and gave her to us.

The male box turtle came to Homer Lake from Anita Purves Nature Center in 2008. He is smaller than most box turtles but has reached his full size.

Species Description:

The box turtle is a terrestrial species, preferring woodland with ground cover, and is seldom found in water except during hot and dry periods. Turtles have two parts of their shell; the upper portion called the carapace and the lower portion called the plastron. No turtle has true teeth. They do have a hard sheath on their jaw (beak) that enables them to cut and crush food.
Box turtles earned their name because of their ability to draw their heads and limbs completely inside their shells, looking box-like.
The average adult box turtle ranges from 4.5-6in. Captive-raised males can reach sexual maturity within four years. Females reach sexual maturity around the age of 5-7 years. The life span of a box turtle is about 30-40 years. Box turtles lay eggs in early summer (hatching in early fall) and the average clutch contains 4 eggs.
Sexing:

1. Males turtles usually have a concave plastron (with a large indentation), whereas the females have a flat plastron.
2. The bright red eyes of the male also distinguish him from a female.

Distribution:

3. Eastern Box Turtles are found in the northeastern U.S. (Maine to Georgia, westward to Michigan, Illinois, and Tennessee).

Fox Snake

Individual animal's history:

We have had our fox snake for many years; however we are not exactly sure how we got him or exactly how old he is. Our fox snake measures over four feet long!

Species Description:

Western Fox Snakes are a fairly good sized snake. They grow to be 3.5 to 5 feet in length. Their heads are usually a solid brown or tan, possibly with faint markings. They have beige or brownish bodies that are dorsally covered with elongated, oval blotches of solid color. Their ventral surface (or belly) is cream or pale-yellow with many irregularly placed, rectangular markings. These snakes are excellent climbers, but prefer to spend most of their time on the ground.

The fox snake emits an ill-smelling fluid from special scent glands at the base of its tail as a defense. Their name “fox snake” refers to this heavy, foxy scent. They are also known for their defense of mimicking a rattlesnake. When aggravated, they will shake the end of the tail against a hard surface. This makes the sound like that of a rattlesnake’s tail.

Western Fox Snakes are constrictors, meaning they wrap around their prey and squeeze it until stops breathing, before consuming it. Because they eat primarily rodents (which damage crops and spread disease), they are beneficial to humans. They lay 10-24 eggs that hatch in 6-8 weeks. The average fox snake lives 8-10 years.

Distribution:
Western Fox Snake's are a North American snake species. In the wild, the western fox snake lives in forests, prairies, or farmland habitats. They are found in the upper Midwestern United States in the States of Wisconsin, South Dakota, Illinois, and Indiana.

Red-eared Slider

Individual animal’s history:
Our red-eared slider came to us in 1993, when his previous owners could no longer care for him. We are not exactly sure how old he is, however he was full grown when we got him.

Species Description:
Red-eared sliders belong to the large turtle family “Emydidae.” These turtles have a red patch of skin on the sides of their heads. They are almost totally aquatic but leave the water to bask on hot, sunny days almost constantly and slide frantically off the logs when approached - hence the name. The red-eared sliders hibernate over the winter at the bottom of ponds or shallow lakes where they enter a state of torpor.

Red-eared sliders are omnivores, feeding on vegetation, insects, and small fish. They eat more fish and insects when young, switching to more plants as they age. These turtles are successful omnivorous predators, due to high intelligence and adaptive skills. These turtles are generally alert and curious, though they can display the same pugnacious personality as other species.

Adults normally reach 5-8 inches long. Males are smaller than females. For males, sexual maturity occurs at about 2-4 years of age or about 3-4 inches in length. Females reach sexual maturity between 5-7 years old and have a shell length of about 5 inches. Mature males develop long fore-claws and have longer tails with a thicker base than those of females. The red-eared slider can live for 15-25 years.

Distribution:
The red-eared sliders range from Indiana to New Mexico and south to the Gulf of Mexico and extreme northeast Mexico.

Painted turtle

Individual animal’s history:

Our painted turtle came to us in August of 2009 from Piatt County. He was about 2 months old. In captivity, he may live over twenty years.

Species Description:
Painted turtles (*Chrysemys picta*) are the most widely distributed turtle in North America. They live in permanent freshwater habitats such as ponds, lakes, marshes, sloughs, and creeks. They spend time in the soft bottoms of these bodies of water as well as in the aquatic vegetation and in sunny basking spots on or near the water. The plastron of the Eastern painted turtle is yellow. These turtles also have yellow and red stripes on their necks, legs, and tails, looking as if they have been painted.
Male painted turtles are generally smaller than the females; they have longer front claws and longer, thicker tails.
Painted turtles can live 15-25 years.

Distribution:
The painted turtle is found from British Columbia to Nova Scotia, south to Georgia, west to Louisiana, north to Oklahoma, and northwest to Oregon.

Yellow Bullhead Catfish

Individual animal's history:
Our yellow bullhead catfish was captured at a Take-Me-Fishing event at Lake of the Woods Forest in 2009 Preserve. At that time, he was only about ½ inch long! He has been raised in captivity ever since. Though he did not meet the minimum size for capture, the forest preserve has special permits to collect certain species for educational purposes.

Species Description:
The yellow bullhead closely resembles the brown bullhead with a thick body and a round or square tail. It is yellow-olive to slate-black above and lighter, often yellow to yellow-olive, on its sides with little to no mottling. The belly may be white, cream, or yellow. The chin barbels are yellow to buff or pale pink; the upper barbels, which are light to dark-brown, help distinguish this species from brown bullheads. The anal fin has a straight margin with 23 to 27 rays.

In the wild, this type of catfish feeds at night, relying on its barbels and sense of smell to search for food along the bottom of river pools or shallow sections of lakes and ponds. It eats a variety of plant and animal material, both live and dead, including small fish, crayfish, insects, snails, clams, and worms. This type of catfish will only get up to a maximum of 5 pounds and has a lifespan of about 7 years. Catfish do not have scales, but they do have leathery skin and sharp spines on their dorsal fin and each pectoral fin.

Yellow bullheads make good parents, especially compared with other fish species. Starting in May or June, both male and female participate in nest building. The nest may be in a burrow under a log or stone, providing protection for offspring. The female will lay 2,000 to 7,000 eggs in clutches of 300 to 700 at a time. The eggs hatch within 5 to 10 days. The male fish then guards the fry (baby fish) until July or August.

Distribution:
These catfish can be found in many places in the United States from Florida all the way up the east coast, in the Midwest, Missouri and Texas. They are typically less sensitive to pollution than most other species of fish.