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Using This Guide

Field trips are a great way for students to experience science beyond the classroom walls. They can hear the roar of a lion, feel the scaly skin of a snake, or watch a flamingo balance on one leg. You may already know that field trips are a great way to learn, and you’re not alone. In fact, researchers all over the world study the impact field trips have on students. We’ve learned a lot this way. For example, we know...

- students remember childhood field trips for years
- students learn new information from field trips
- field trips can get students excited about topics like science
- learner-centered explorations are the most successful field trip activities

...and that proper planning can make a good field trip even better.

To help with the planning part, we’ve created this guide to prepare you for your field trip and identify ways to revisit the experience back in the classroom. This guide contains information about the zoo and its animals, detailed lesson plans, and helpful hints to make your field trip the best it can be. Don’t feel the need to do all the activities in this guide for your field trip to be a success. Even one activity can enhance your experience.
Lincoln Park Zoo Map

Spend a few minutes getting to know Lincoln Park Zoo. What exhibits do you hope to visit?

**Exhibits**

1. Penguins, Seabirds
2. Vultures, Eagles, Owls
3. Tropical Birds
4. Giraffes, Rhinos, Ostriches
5. Polar Bear, Sun Bears
6. Monkeys
7. Lions, Tigers
8. Seals
9. Bears, Otters, Wolves
10. Snakes, Bats, Wallaby
11. Swans, Ducks
12. Flamingos, Geese
13. Chimpanzees, Gorillas
14. Antelope, Zebras, Kangaroos
15. Cows, Goats, Pigs, Ponies

**Food**

17. Safari Café*: Tostadas, wings, flautas and ice cream novelties.
18. Café at Wild Things*: Organic fare, including paninis, salads and other green goodies.
20. Park Place Café: Mexican food, Italian fare, burgers, sandwiches, salads, beer, wine and more. Ice cream, too!
22. Ice Cream Shoppe*: Hand-dipped ice cream, banana splits and sundaes.

**Rides**

23. LPZOO Children’s Train*: Hop aboard this kid-friendly locomotive. $2.50 per ride.
24. AT&T Endangered Species Carousel*: Take a ride with your favorite animal. $2.75 per ride.

**Facilities**

25. Gateway Pavilion
26. Judy Keller Education Center
27. Tadpole Room
28. Bus Drop-off Zone
29. Foreman Pavilion*
30. People’s Gas Education Pavilion*

*Open seasonally

**Shops**

24. Safari Shop*: Make your own wild animal—inside the Kovler Lion House.
25. Great Ape Gifts*: Remember your visit with a great ape souvenir—inside Regenstein Center for African Apes.
26. Nature Gifts*
27. Wild Gifts*

**Legend**

- Information
- Restrooms
- Accessible Restrooms
- Zoo Food
- Zoo Shops
- ATM
- Strollers/Wheelchairs
- Lockers
- Picnic/Lunch Area
- Emergency/First Aid
- Parking
- Conservation Center and Animal Hospital
- Entrance
Get to Know our Animals

We’re pretty sure seeing animals is a top priority of your visit! With over 200 species on display, it’s impossible to list every animal you might see at the zoo. However, this list of exhibition spaces will give you a general idea of what to expect on the day of your visit.

**Regenstein African Journey**
This exhibit takes you on safari through the different habitats of the African continent. You’ll get up close with orb-weaver spiders and watch meerkats busily scampering about. With both indoor and outdoor exhibit space, there’s plenty of room for rhinos, giraffes and other savanna animals.

**McCormick Bird House & Regenstein Birds of Prey Exhibit**
Hear the “laugh” of a kookaburra, then find birds from around the world in the Free Flight area of the Bird House. At Birds of Prey, see how large a bald eagle’s beak is and listen for the storks’ clacking beaks.

**Kovler Penguin/Seabird House**
Go for a swim without getting wet in this exhibit space. Floor-to-ceiling glass allows you to see penguins, puffins, and other sea birds waddle about on land and swim elegantly through the water.

**Helen Brach Primate House**
There’s always something going on in the primate house. You’ll see families like the Francois’ langurs grooming each other, gibbons swinging from branch to branch, or Titi monkeys taking a rest high on a branch with their tails entwined.

**Kovler Lion House**
Big teeth and sharp claws abound at the Kovler Lion House. You might catch a glimpse of a tiger on the prowl or see a puma leap to the very top of its exhibit. If you look carefully enough, you might even find the non-feline residents of the Lion House—red pandas!

**Pritzker Family Children’s Zoo**
Explore North American species in this area that combines indoor and outdoor exhibit spaces. Red wolves, black bears and river otters are just a few of the animals you’ll discover. This area also has a tempting indoor climbing structure so we suggest deciding ahead of time if this is something you’d like to make a part of your visit.

**Regenstein Small Mammal-Reptile House**
Both scaly and furry animals can be found in this exhibit. Watch bats hang from the ceiling and snakes slither. The immersive environment allows you to view a variety of species sharing space, creating the perfect opportunity to discuss habitat use.
Hope B. McCormick Swan Pond & Flamingo Habitat
Diving ducks, gliding swans and brilliant pink Chilean flamingos are just a few of the animals you’ll see in these two adjoining habitats.

Regenstein Center for African Apes
Be sure to allow plenty of time for this incredible exhibit space. Floor-to-ceiling glass is the only barrier between your students and our chimpanzee and gorilla families. You might even catch a glimpse of a researcher observing our apes and recording data. Be sure not to bother these busy scientists, but definitely take some time to observe them at work!

Antelope & Zebra Area
This outdoor exhibit area allows you to watch zebras gallop, observe alpacas band together in a small herd, and catch a glimpse of the unique and rare Sichuan takin.

Farm-in-the-Zoo Presented by John Deere
At the south end of the zoo students can learn a little more about the origin of the food they eat. From honeybees to dairy cows, the Farm-in-the-Zoo has something for every learner.

Nature Boardwalk at Lincoln Park Zoo
(Opening Summer 2010)
Find yourself in a natural oasis in the middle of the city! Nature Boardwalk at Lincoln Park Zoo is located at the southern end of the zoo. A boardwalk allows you to wander the perimeter of the pond, keeping an eye out for birds, dragonflies, turtles and frogs as you enjoy the native plantings.

These are just some of the many animals you’ll see during your visit. Would you like even more information about animals in our collection? Visit the web site at: www.lpzoo.org
Five Frequently Asked Questions

1. We can’t stand crowds. When is a good time to visit?
While a Friday in May sounds like the perfect day for a class field trip, many other teachers are thinking the same thing! Winter is a great time to visit. With so many indoor exhibit spaces, it’s the best time for you and your students to have the zoo to yourselves. Smaller crowds will allow you to get closer to exhibits, result in reduced bathroom lines, and often lead to lower volume levels within exhibits that allow for better communicating with your class. If you prefer to avoid snow, we suggest fall or early spring as another option for avoiding crowds. We also suggest you check the zoo’s web site to determine if there are any special events planned for the day of your visit that may impact your experience.

2. How can we make sure the animal we want to see is visible?
Having a general plan of what you’d like to see and what you’d like to do is always a good choice. However, zoos are comprised of living animals that can be unpredictable. An animal you planned on observing may be off exhibit for the day. A new animal may have joined the collection that you didn’t know about. We encourage you to stay flexible and be open to making a last minute switch if necessary.

3. Can we arrange for a keeper meeting or conduct an interview by phone?
You can imagine this is a popular question! Unfortunately we don’t have the resources to accommodate all these requests. We know it’s exciting to learn about the different careers here at the zoo and we are exploring some new programming options for the future.

4. Can the bus drop us off anywhere?
All school groups must be dropped off at the bus drop-off area. Your bus should enter the parking lot on Cannon Drive at Fullerton. The driver will need to pull a parking ticket, but there is no charge for the first half hour they are in the lot. They will then follow the signs indicating where drop-off and pick-up will take place.

5. Are there souvenirs, lunch packages or rides for the kids?
There are a variety of things you can purchase to enhance your visit. We have boxed lunches, souvenir goody bags and carousel or train tickets available at group prices. These need to be purchased prior to your visit. Learn more about these options by going to our Plan a Field Trip page (http://www.lpzoo.org/edu_fieldtrip.php) and clicking on the group sales order form link.

Located near the East Gate, Gateway Pavilion can provide you with helpful information during your visit.
Logistics and Planning

Making a Reservation
We ask all school and camp groups planning a zoo visit to register online. While there is no charge for your visit to the zoo, this helps us determine staffing needs so that we can provide our visitors with the best possible zoo experience. Register at www.lpzoo.org/education by selecting the link “Plan a Field Trip”

Arranging for Special Activities
Decide which additional activities or services you’d like to add to your reservation. Whatever you decide, be clear with students before the visit about your plans for the day.

Managing the Day
Be prepared for the logistics of the day—from bus drop-off to the number of chaperones you’ll have with your class. Things to consider include:

Allow Enough Time
Select a departure time from your school that allows for traffic delays and parking-lot congestion, but still provides sufficient time for exploring the zoo. Buildings on the zoo grounds do not open until 10 a.m., but many of our animals can be seen in their outdoor enclosures at an earlier hour.

Plan for Emergencies
Be sure to bring along a cell phone, parent-contact information, and procedures to follow if a student should become separated from your group. If you need assistance while at the zoo, proceed directly to Gateway Pavilion where we can provide the help you need.

Connecting with Parents
The bus drop-off area can become quite congested. If parents plan to meet you at the zoo, we suggest that you pick a specific exhibit at which to meet as well as a meeting time that allows for delays. If possible, share cell phone numbers in case plans should change.

Bathroom Breaks
There are several bathrooms located throughout the zoo. Our high-capacity restrooms are on the bottom level of the Kovler Lion House. They hold a large number stalls for both boys and girls.

Bathroom locations with smaller capacity (but helpful for emergencies or small groups) include:
- Bottom level of Park Place Café
- Farm-in-the-Zoo Presented by John Deere
- Foreman Pavillion
- Indoor area of Pritzker Family Children’s Zoo
- Regenstein Small Mammal-Reptile House

Managing Lunch Time
Though we do not provide monitored lunch storage, there are several options for managing student lunches. Students can carry their own lunches throughout the zoo as long as lunches are closed and food sealed. You may also choose to bring your own personal lock and secure student lunches using our outdoor cage lockers. We do not, however, suggest leaving valuables in this area. We do have pay lockers that require four quarters. These are not large, so several would be needed to store lunches for a full class.

When it is time to eat, there are several areas set aside for you to enjoy your lunch. If you would like to enjoy the outdoors, you may select from picnic tables near the bus drop-off or the sheltered Foreman Pavilion area near the McCormick Swan Pond. In the event of cold weather, you may eat in the Tadpole Room which is located indoors on the bottom floor of the Park Place Café. Please note that these eating areas are open to all groups and cannot be reserved.

Seating at the tables associated with our Zoo Foods locations throughout the zoo is reserved for customers only. This includes the Landmark Café, Park Place Café, Café Brauer, and the Café at Wild Things. We thank you in advance for your understanding.
Preparing for Your Day

**Importance of Pre-Visit Activities**

In addition to logistical planning, preparing students with a few key activities will help make the field trip more meaningful to them and link more effectively to classroom objectives. Many researchers have discovered that when a field trip location is new for students, they can be overwhelmed. These feelings can take away from the learning and excitement of the visit. Telling students a little about what they might see, showing them images from the zoo website, and going over the day’s schedule in advance can build excitement and reduce nervousness on the day of the visit.

It’s not necessary for students to know everything about animals before a visit to the zoo. However, providing a little information about some of the animals they may encounter can be helpful.
Before You Visit

Activity 1: Plan Your Route

“I definitely want to see the lions. That’s what I care about most,” asserted Maria. “But I want to see the monkeys—they look neat climbing all over their exhibit!” countered Kyle. “Okay—so you want to see lions, you want to see monkeys and I want to see the flamingos. I think we can fit all of them in and leave time for shopping at the gift shop!” said Tessa. “There’s so much to see!” said Kyle enthusiastically. “We’ll never manage!” “We’ll figure something out,” redirected Maria. “Let’s take another look at our map!”

Activity Overview
Including students in the planning process will not only reduce apprehension of visiting a new place, but also allow them to take ownership in the day’s activities. Lincoln Park Zoo has over 900 individual animals representing over 200 species so it’s likely you will not have time to see every animal in a single visit. In this activity, students will work in groups to identify which exhibits they want to explore and use a zoo map to plan an efficient path for their visit.

Objective
Students will identify five animals they most want to visit and design a corresponding route to follow at the zoo.

Materials
Copies of zoo map (pg. 2)
Description of exhibits (pg. 3, 4)
Large paper to share results with the class

Standards Connection
Early Elementary and Late Elementary Illinois State Learning Goals:
Social Studies 17A: Locate, describe and explain places, regions and features on the Earth

Inquiry Connection
■ Examining books and other information sources
■ Planning investigations

Procedure
After informing students they are going to be taking a field trip to Lincoln Park Zoo, let them know that they are going to help with planning for the day. Explain that with so much to see, it will be important to identify the exhibits they are most excited about and determine the best way to navigate the zoo to see as much as possible.

At this stage, share any specific exhibits you definitely need to include in the day’s itinerary because of classroom curriculum or state standards. Students will want to make sure their plans accommodate these needs.

Place students in groups of four and provide each group with a copy of the zoo map and description of the exhibits. Access to the Internet can also be helpful at this stage as it will provide more specific information on the many species within each zoo space.

Working in their groups, have students use the exhibit information to identify the five areas they’d most like to visit. After they have agreed upon their five destinations, have them use the zoo map to plan the most efficient route for seeing their top five choices. You might want to also have them plan for restroom stops, lunch, or a trip to the gift shop.

Evaluation
Students should be evaluated with a credit/no-credit system, earning credit if they both identified exhibits to see and a potential pathway to follow at the zoo.

Modification for Younger Students
This activity may be more successful structured as a whole-class discussion using an overhead projector or by placing adult helpers along with each small group to guide the planning process.

Extensions
To build problem-solving skills, you can provide students with an “update” that would cause them to make a last-minute change to their plan. What would they do if...
■ the McCormick Bird House was closed for repairs?
■ a pied tamarin was born the night before?

Provided you have enough chaperones to accompany each group, you can allow students to remain in their groups during their visit and follow the plan that they have designed.
Before You Visit
Activity 2: Investigate
Up Close

“This one is so smooth! I bet this would be really helpful with flying!” said Kyle. “And this feather is so soft! I would like this kind to be right by my skin to keep me warm,” responded Maria holding a down feather. Tessa was using her hand lens. “You know, I separated the parts of this big feather and was able to actually put it back together so it was smooth! I wonder if that’s what birds are doing when they look like they are biting their feathers. They might be making them smooth again!”

Activity Overview
Children enjoy touching what they are learning about. We have learning stations that will provide opportunities to touch during your visit. In addition, you can conduct a feather investigation prior to your visit. This will give students hands-on experiences to draw from when they reach our exhibits focused on birds that may not have hands-on opportunities.

Objective
Students will observe, touch and describe different types of bird feathers.

Materials
Assorted, naturally colored feathers from craft store
Copies of All About Feathers (see pg. 10)
Hand lenses

Standards Connection
Early Elementary and Late Elementary Illinois State Learning Goals:
Science 11A: Know and apply the concepts, principles and processes of scientific inquiry

Inquiry Connection
- Making observations
- Communicating results

Procedure
Place students in groups of three or four and let them know that they will have a chance to explore bird feathers in preparation for their visit to Lincoln Park Zoo.

Ask students to think about some ways that feathers may help birds survive. Examples include:
- Feathers enable many birds to fly
- Feathers insulate birds to help keep them warm
- Feathers can help a bird camouflage and avoid predators
- Feathers of bright colors can help attract a mate

Explain that they are going to have the opportunity to investigate real bird feathers. Their goal will be to observe carefully and share their discoveries with group members.

Provide each group with a collection of feathers and a hand lens for each student. Have them make observations and ask them to orally share three details they discovered. They may want to focus on feather structure, color, the feel of the feathers or how fast they may drop to the ground.
After the initial exploration, provide students with a copy of the All About Feather information sheet and ask them to classify their feathers according to this information. As follow-up, lead a brief discussion with the class on how these differently structured feathers would be helpful to the bird in different ways.

End the activity by encouraging students to think about birds they may encounter at the zoo. While they won’t be able to touch these birds, they will get to observe an even larger range of feather types and colors. This time though, they’ll still be attached to the birds!

**Evaluation**

A three-point scoring rubric can be used to measure student participation in the inquiry process.

<table>
<thead>
<tr>
<th>3</th>
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<tbody>
<tr>
<td>Student conducts careful and focused observations</td>
<td>Two of these three criteria are met</td>
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<tr>
<td>Student accurately describes what they see to a friend or the class</td>
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</tr>
<tr>
<td>Student is able to classify his/her feathers using the information sheet provided</td>
<td>One of these criteria is met</td>
</tr>
</tbody>
</table>

**Extension**

To encourage attention to detail, you might want to have students create scientific illustrations of the feathers they are investigating. Colored pencils will allow students to more authentically capture nuances of color and shade.

**All About Feathers**

**Scientist’s Name:**

What types of feathers do you have?

- **Flight Feathers**
  
  Flight feathers are smooth and are found on the wings and the tail.

- **Body Contour Feathers**
  
  These feathers are found almost all over the bird’s body. The part closest to the body is soft and helps keep the bird warm. The smooth part of the feathers create a streamlined body that can move easily through the air during flight.

- **Down Feathers**
  
  These feathers are soft and fluffy and help keep the bird warm.

**Making Careful Choices**

While it can be a great experience for students to learn more about animals by investigating specimens such as feathers, it’s important that the feathers we use are acquired safely and legally. Commercially purchased feathers are safer for students to handle than feathers found in nature. As collecting any bird-related items such as feathers, nests or eggs from the wild is almost always illegal, purchasing feathers from a craft store is the best option for classroom investigations. For more information, visit the web site for U.S. Fish and Wildlife Service: www.fws.gov.
Exploring the Zoo

Importance of Inquiry-Based Exploration
With many schools only receiving one field trip a year, we know it can be tempting to try and squeeze everything into a single visit. However, research tells us that an overly busy day can leave students with negative feelings about the field trip and science as a whole.

Setting reasonable parameters for your day will prevent a rushed experience. Having a focus for your visit can also help. Many teachers find activity sheets or scavenger hunts are a great way to keep students on task. We’ve learned these are most effective when they are open-ended, focus on the animal rather than a label, and provide opportunities for inquiry.

Inquiry-based approaches align with the way practicing scientists explore and study the world around them. Inquiry-based activities will include:

- Making observations
- Posing questions
- Examining books and other information sources
- Planning investigations
- Using tools to gather and analyze data
- Proposing answers, explanations and predictions
- Communicating results

A single activity doesn’t need all of these elements to be considered inquiry. Aligning with even one is a great start!
During Your Visit
Activity 3: Conducting Animal Observations

“All my bird does is sit there on that pile of twigs—that’s so boring” complained Kyle. “Have you wondered why it’s just sitting there,” asked Tessa. “Maybe there’s a reason.” Just then, the bird readjusted its position and a small white egg could be seen underneath its body. “It’s an egg!!” screamed Maria. “Wow,” replied Kyle, suddenly interested. “I think that makes my bird the MOST interesting of them all!”

Activity Overview
Carefully observing animals is an inquiry-based activity that can be done anywhere, from the local zoo to the lunch area on a schoolyard. This activity asks students to select a bird of their choice and record its behavior over a set period of time. Scientists use ethograms to help them systematically collect this data.

Objective
Students will record animal-behavior data and share their discoveries with their peers.

Materials
Copies of Observation Data Sheets (pg. 14)
Clipboards
Stopwatch or watch with second hand
Pencils

Standards Connection
Early Elementary and Late Elementary Illinois State Learning Goals:
Science 11A: Know and apply the concepts, principles and processes of scientific inquiry
Science 12B: Know and apply concepts that describe how living things interact with each other and with their environment.

Inquiry Connection
- Making observations
- Examining books and other information sources
- Using tools to gather and analyze data
- Proposing answers, explanations and predictions
- Communicating results

Procedure
Before going to the zoo, briefly discuss with the students the work of a scientist and the field of animal-behavior studies. (See Find Out More on pg. 13.) Explain that they will be conducting their own animal behavior study during their zoo visit.

Prepare them for the process of observation and data collection by conducting several practice session at the school site utilizing local bird species. This practice will support student success at the zoo when there are likely to be many factors competing for their attention.

Upon arrival at the zoo, proceed to the McCormick Bird House. Move through the exhibit until you reach the Free Flight area, where you will be standing on a wood platform with birds in the natural spaces around you.

Ask students to find a single bird to observe within the exhibit space. More than one student can observe the same bird, but encourage students to space themselves evenly through the exhibit space. This will give students room to work and discourage off-task behavior that often comes from close, physical proximity.
Provide individual students with a clipboard and a copy of the data sheet. You will serve as the time keeper, announcing every thirty seconds so students can then record what they see on their data sheet.

After the allotted observation time is up, collect clipboards and data sheets for further analysis back in the classroom. Students may want to create graphs or tables from the data they collected, making comparisons between their observations and those of their peers. Displaying these results on a bulletin board along with photos of students at work is a great way to conclude the activity.

**Evaluation**
A three-point scoring rubric can be used to measure student engagement in the activity.

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<tbody>
<tr>
<td>Student stays attentive and on-task during timed observation period</td>
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<td>Student accurately records data on provided data sheet</td>
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<td>Student discusses data with his/her peers</td>
<td>One of these criteria is met</td>
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**Modifications for Younger Students**
A modified data sheet will be appropriate for young learners. Several behaviors can be combined so there are fewer categories to identify. For students that need more time to write, intervals can be increased to 60 seconds/one minute. Students can be placed in groups with one student keeping time, one doing the observation, and one or more doing the data recording.

**Scientists and Ethograms**
When scientists conduct animal observations, they have set procedures to collect data as accurately as possible. They also need to collect a lot of data before they draw any final conclusions. Researchers often use something called an ethogram when conducting animal observations. Ethograms are a list of all the possible behaviors they might see. They help ensure data collected by many different researchers is consistent enough to be compared. As you can imagine, we often use different ethograms for different species to capture the unique behaviors of each. For example, a lion wouldn’t likely be seen “flying.” Some ethograms however can be used for different species that might have similar behaviors.
Observation Data Sheet: Bird

Observer’s Name: ______________________ Date: _______________ Species: ______________________

Self-Preening
The bird is moving its own feathers with its beak, stretching or sunning.

Feeding
The bird is eating or foraging for food.

Vocalizing
The bird is singing or making a noise.

Locomotion
The bird is walking, flying, pacing, hopping, running or jumping.

Resting
The bird is lying down or perched somewhere in their exhibit. No other behavior is occurring.

Not Visible
The bird is off exhibit or you cannot see the bird you were observing.

Other
You see a behavior other than the ones described above.

Ethograms that are part of this curriculum guide have been modified and condensed in order to be more developmentally appropriate for your students. Recommended for grades 3-5.

<table>
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<th>Time</th>
<th>Self-Preening</th>
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<th>Vocalizing</th>
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Notes
During Your Visit
Activity 4: Enrichment Search

“Why is the black bear sniffing underneath that rock?” asked Kyle. “Maybe there is food under there,” commented Maria. “Why would there be food there, wouldn’t it be in his food bowl?” asked Tessa. “Maybe a zoo keeper hid the food,” said Maria. “I wonder why they would do that?” asked Kyle. “Let’s see if any other animals are doing something similar,” suggested Maria. “Good idea,” said Tessa.

Activity Overview
In this activity, students will use their observation skills to determine what type of enrichment the animals were given by the zoo keeper that day. Enrichment is something that keepers provide for the animals to keep them active and interested in their environments, such as unique food presentation, scents or toys.

Objective
Students will record examples of enrichment they observe during their visit.

Materials
Copies of Enrichment Search Data Sheet (pg. 17)
Pencils
Clipboards (optional)

Standards Connection
Early Elementary and Late Elementary Illinois State Learning Goals:
Science 11A: Know and apply the concepts, principles and processes of scientific inquiry
Science 13A: Know and apply the accepted practices of science

Inquiry Connection
- Making observations
- Proposing answers, explanations and predictions
- Communicating results

Procedure
Before arriving at the zoo, introduce your students to the concept of enrichment as well as the types of enrichment that they may see. (See Find Out More on pg. 16.)

Upon arrival at the zoo, explain students will be using careful observation skills to identify examples of enrichment within the animal habitats. To record their observations, provide each student with a data sheet.

Because not all exhibits will have obvious or even visible enrichment components, provide students with the opportunity to visit a number of exhibits throughout the zoo. Also remind them that some enrichment items such as scent may not be apparent to us. Encourage them to observe animal behavior as an indicator that enrichment might be present.

Back in the classroom, tie the enrichment observations back to personally relevant topics. You might encourage them to discuss what they do in their own lives for enrichment such as play a sport or visit with friends. You might also want to discuss providing enrichment for pets such as toys or scratching posts.

Evaluation
A three-point scoring rubric can be used to measure student engagement in the activity.

<table>
<thead>
<tr>
<th>3</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student stays attentive and on-task during observations</td>
<td>Two of these three criteria are met</td>
</tr>
<tr>
<td>Student accurately records data on provided data sheet</td>
<td>1</td>
</tr>
<tr>
<td>Student discusses data with his/her peers</td>
<td>One of these criteria is met</td>
</tr>
</tbody>
</table>

Modification for Younger Students
For younger students not yet able to write their observations, you can modify the data sheet so students can draw pictures of the enrichment they see.

Extensions
Students can develop a list of enrichment items for an animal of their choice based on what they think that animal would like. Encourage them to think about the behavior that that type of enrichment would promote.

Back in the classroom, the students can make enrichment for a class pet or a pet at home, such as a decorated cardboard box or a piñata in which to hide a treat.
All About Enrichment

Zoo keepers provide each animal some form of enrichment almost every day. Enrichment is designed to encourage animals to exhibit natural behaviors such as foraging, hunting, digging, exploration and others.

**Exhibit design:**
Different levels, things to climb, and niches in which to hide are all exhibit components that keep animals interested. Keepers will also make changes to exhibits so there’s always something new.

**Food:**
Zoo keepers scatter food so animals can forage and handle their food as they would in the wild. They might scatter it around the exhibit or hide it under rocks, within logs or in containers that are challenging to open. The zoo nutritionist creates a diet plan that includes a large variety of foods so the animals don’t get tired of eating the same things each day.

**Novel objects:**
Unique items can be added to an animal’s enclosure to encourage it to explore and interact with new things. Burlap bags, sheets, balls, chew toys, or papier-mâché piñatas filled with fruit treats are just a few examples.

**Scent:**
Animal keepers sometimes introduce different scents to an exhibit such as spices, perfume, or even scents of other animals.

**Sound:**
Recorded sounds can be used to simulate what animals may hear in their natural environment.
Enrichment Search Data Sheet

Researcher: ___________________________  Date: ____________________

Animal: ______________________________

_______ Exhibit Design    _______ Food    _______ Novel Objects    _______ Scent    _______ Sound

What did you see?________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Animal: ______________________________

_______ Exhibit Design    _______ Food    _______ Novel Objects    _______ Scent    _______ Sound

What did you see?________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Animal: ______________________________

_______ Exhibit Design    _______ Food    _______ Novel Objects    _______ Scent    _______ Sound

What did you see?________________________________________________________
________________________________________________________________________
________________________________________________________________________
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________________________________________________________________________
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Revisiting the Experience

Importance of Reinforcing Information Learned
Just because the field trip is over doesn’t mean the learning is. Revisiting details of a field trip experience back in the classroom is a great opportunity to reinforce newly learned information, address any misconceptions, or answer any lingering questions. This reinforcement is a critical part of the learning process.

To provide this reinforcement, create activities that replicate the field trip experience and prompt students to summarize and share their experiences. Not only will these activities support student learning, but also help transfer some of the enthusiasm from the field trip back to the classroom setting.
Revisiting the Experience
Activity 5:
Communicating Discoveries

“I hope they listen to us. We have a lot of important information they need to know!” Tessa whispered to her teammates. “I think it’s more than just information we’re sharing,” Maria reminded her. “We also want them to get excited for their trip next year.” “I don’t know who wouldn’t be excited... I mean we have these amazing pictures and that funny story about the young swan learning to swim,” laughed Kyle. “See Tessa,” Maria smiled encouragingly. “I know they’ll be excited to learn more about our trip to the zoo!”

Activity Overview
A great way to reinforce newly learned information is to have students re-teach the information with peers. This activity asks students to share their zoo experience with other students, some of whom may have taken the same field trip years earlier or who may be scheduled to take a trip in the coming year.

Objective
Students will share their zoo experience through oral and written presentations.

Materials
Large poster boards
Art materials
Photos from field trip
Zoo Guides downloaded from the web site

Standards Connection
Early Elementary and Late Elementary Illinois State Learning Goals:
Language Arts 3C: Communicate ideas in writing to accomplish a variety of purposes
Language Arts 4B: Speak effectively using language appropriate to the situation and audience

Inquiry Connection
- Communicating results

Preparation
In preparation for the activity, you’ll want to take photos of students during the field trip. Keeping a copy of your zoo map or other materials from the day can be used during the preparation of the final project.

Procedure
Place students in small groups and provide them with a large poster board and other art materials. Ask them to summarize their experience at the zoo in a way that can be presented to other students at the school.

You may choose to have students summarize data they collected during their visit or compare the animals they studied with those of another group. You may also choose to just highlight what they saw at the zoo or what surprised them about the visit. Whatever the focus, students will articulate their thoughts through a mixed-media presentation using maps and hand-outs from the zoo’s web site, clippings from magazines, markers, paint and other art or craft materials.

After students have had a chance to create their posters, provide the opportunity to practice presentations within the classroom. Once students feel secure, arrange for each group to visit a different class. After students conduct their presentation, provide time to discuss the experience as a class to highlight their successes.

Evaluation
Students should receive basic credit for completing a poster and conducting an oral presentation of their experience. Specific evaluation criteria will vary by grade level.

Modification for Younger Students
Younger students may be more comfortable hosting older students and/or parents in their own classroom.

Extensions
Students can write letters for next year’s students on what to expect during the field trip.

Students can create a class book that can be laminated and left in the school library for check-out.
Revisiting the Experience
Activity 6: Explore Schoolyard Wildlife

“You can be the recorder, you carry our supplies, and I’ll be the observer!” announced Tessa authoritatively. “I don’t want to just carry supplies. That’s not science,” whined Kyle. “Isn’t it better if we ALL do the observing?” suggested Maria helpfully. Tessa rolled her eyes, “There probably isn’t even that much to see—we don’t need THREE observers!” Just then Mr. Garrett passed out a list of plants and animals that the students might discover on their walk around the schoolyard. “Wow,” whispered Tessa. “There are twelve different birds we might find!” “And 10 different kinds of bugs!” added Kyle. “I guess we’ll all need to help with the observing after all,” Maria smirked.

Activity Overview
Providing students with a rich, inquiry-based science curriculum is critical to their success. Helping students see connections between their day at Lincoln Park Zoo and the classroom curriculum helps to extend learning beyond a single field trip day. Conducting surveys of their local schoolyard is one activity that can help with these connections.

Objective
Students will explore their schoolyard and record the different species they encounter.

Materials
Copies of Schoolyard Field Guides (sample provided on pg. 22)
Copies of Schoolyard Exploration Data Sheets (pg. 21)
Clipboards
Pencils

Standards Connection
Early Elementary and Late Elementary Illinois State Learning Goals:
Science 11A: Know and apply the concepts, principles and processes of scientific inquiry
Science 12A: Know and apply concepts that explain how living things function, adapt and change
Math 10B: Formulate questions, design data collection methods, gather and analyze data and communicate findings

Inquiry Connection
- Making observations
- Using tools to gather and analyze data
- Proposing answers, explanations and predictions
- Communicating results

Preparation
Before conducting the activity, you’ll need to create a simple field guide for students to use during their exploration. Your field guide will consist of images of things students are likely to encounter together with the name of the plant or animal. These are not intended to cover everything students might find. Instead, start with a few things you know are likely to be around such as ants, pigeons, gulls and spiders. We’ve provided a sample guide to get you started!

Procedure
Explain to students that the zoo is not the only place for them to explore wildlife! Their own schoolyard is likely to have several species of plants and animals that call the urban environment home.

Prepare students for the activity by reinforcing the importance of careful observation. A school lawn may look like one type of grass from a distance. Looking closer can reveal the lawn is really comprised of several different types of green plants. Some students may quickly say their school doesn’t have any wildlife. However, if they look more closely they might notice an abandoned lunch attracting ants or crows perched in a neighbor’s tree.

After preparing students to be careful observers, provide them with images of the types of animals they might encounter on their schoolyard. You can easily create a simple field guide, like the sample provided, using images from your own digital camera or the Internet.

Provide students with clipboards and data sheets and set aside time to explore the schoolyard. As they record their discoveries, remind them it’s okay if they don’t know the name of a bird or insect as long as they record a description or sketch of what they saw.

After students have collected their data, you can compile the information into a class chart or graph as an overview of the many different living things that share the schoolyard.

What discoveries did students make?

Evaluation
A three-point scoring rubric can be used to evaluate completed data sheets.

<table>
<thead>
<tr>
<th></th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student records information on 3 or more species</td>
<td>Student records information on 2 species</td>
<td>Student records information on 1 species</td>
<td></td>
</tr>
</tbody>
</table>
Schoolyard Exploration Data Sheet

Researchers: ________________________ _____________________________
                           __________________________ _____________________________
Weather:                          __________________________________________________________
Time:                             ________________________

<table>
<thead>
<tr>
<th>Species</th>
<th>Number*</th>
<th>Notes and/or Sketch</th>
</tr>
</thead>
<tbody>
<tr>
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*If you encounter a trail of ants, beehive, pigeon flock or other large group, it’s okay to estimate rather than count exactly how many you see!

What was your most surprising discovery?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
## Schoolyard Field Guide

What animals can you find in your schoolyard?

<table>
<thead>
<tr>
<th>Animal</th>
<th>Scientific Name</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>House Sparrow (male)</strong></td>
<td><em>Passer domesticus</em></td>
</tr>
<tr>
<td><strong>American Crow</strong></td>
<td><em>Corvus brachyrhynchos</em></td>
</tr>
<tr>
<td><strong>Eastern Gray Squirrel</strong></td>
<td><em>Sciurus carolinensis</em></td>
</tr>
<tr>
<td><strong>Eastern Cottontail Rabbit</strong></td>
<td><em>Sylvilagus floridanus</em></td>
</tr>
<tr>
<td><strong>Pigeon/Rock Dove</strong></td>
<td><em>Columba livia</em></td>
</tr>
<tr>
<td><strong>Sowbug/Pillbug/Rolypoly/Woodlouse</strong></td>
<td>Suborder: Oniscidea (Multiple species)</td>
</tr>
<tr>
<td><strong>Ant</strong></td>
<td>Family: Formicidae (multiple species)</td>
</tr>
<tr>
<td><strong>Spider</strong></td>
<td>Order: Araneae (Multiple species)</td>
</tr>
</tbody>
</table>

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Connecting with Families

We’ve all seen it happen. A child ends an action-packed day at school but when a family member asks what they did, out comes a mumbled “nothing.” We know that reinforcement of the day’s learning activities is an important part of the field trip process, so encouraging students to talk about the experience with family members is critical.

Share The Experience
Students get pretty excited during a zoo visit. Roaring lions, shocking pink flamingos, and roaming rhinos can inspire some pretty big smiles. Using a digital camera to capture these moments is a great way to share the experience with family members who could not be there. Depending on your school resources and photography guidelines, you might want to create a CD of the photos as a keepsake for your students. Some schools may allow you to post the images on a class web site as long as student identity isn’t shared and proper permission slips are completed. Sending a letter home with students that summarizes some of the day’s events as well as providing questions to prompt discussion can encourage family dialog and extend the learning process.

Plan a Saturday Field Trip
Sometimes, planning an after-hours or weekend event is the only way to connect with working parents. Planning an optional field trip on a weekend day for your students and their families is a great way to promote home-school connections. It’s also an opportunity to demonstrate to parents how they can use resources like zoos to promote learning. Because Lincoln Park Zoo is free, there are no admission-fee barriers to prevent families who might struggle financially from joining you. Be sure to stipulate this is a family event where all ages are welcome, but children must be accompanied by an adult.

Support Family Visits to the Zoo
We know that when students have the opportunity to make repeat visits to a field trip destination, there can be greater learning gains. We also know that most teachers don’t have the option of taking multiple field trips over the school year. One way to encourage these repeat visits is to support families in taking trips with their children outside of school hours. The best way to support families in planning their own visit to Lincoln Park Zoo is to provide all the information they need for a successful day. We’ve created a letter with all this information that can be photocopied and sent home with students.
Dear Family Members and Friends,

Today we took a field trip to Lincoln Park Zoo. It was an exciting and fun day for us all! Ask your child about our adventures and encourage him or her to tell you something special about the day. Here are some questions to get you started.

What types of animals did you see?
What were they doing?
What was your favorite part of the visit?
If you could go back, what would you do?

Because there’s no way to fit all the exciting things at Lincoln Park Zoo into a single school field trip, we encourage you to return as a family. Some things to know about Lincoln Park Zoo are:

- The zoo is located on Stockton Drive, just south of Fullerton Parkway and west of Lake Shore Drive
- There is free admission for everyone
- The zoo is easily accessed by public transportation. The zoo is approximately one mile east of the Fullerton CTA stop. In addition, the 151 and 156 buses stop right in front of the entrance.
- The zoo is open every day of the year
- The animal buildings are open from 10 a.m.– 4:30 p.m. in the winter and 10 a.m. – 5 p.m. in the fall, spring and summer
- The zoo stays open later during summer weekends and the winter holidays to provide even more opportunity to visit! Please see www.lpzoo.org for exact dates and hours of operation.
- You can pick up a free map that will show you all the fun things to see once you’re there
- You can purchase lunch at the zoo or bring lunch to enjoy on the lawn or picnic tables

Lincoln Park Zoo’s web site has lots of information about the types of animals you might see and the scientists that work there, as well as parking rates and directions if you plan on driving. Visit www.lpzoo.org. A trip to the zoo is a perfect activity for weekends, school holidays, or even a short visit after school!

Sincerely,