



Veterinary Bag Exploration

at the Sarah Allison Steffee Center
for Zoological Medicine

Teacher & Chaperone Guide

Thank you for registering your group for Cleveland Metroparks Zoo's Veterinary Bag Exploration activity. The following information is provided to ensure you have the necessary information to complete this activity. Should you have any questions, please reach out to the **Zoo's Registration Office at (216) 635-3391**. We hope you have fun and enjoy your time at the Zoo.

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This role-playing activity is designed to challenge students to work together and think in a scientific manner. They will make observations, work with and manipulate data, change their ideas as new knowledge is gained, and draw their own conclusions in an effort to solve a scientific problem – a grizzly bear with a medical problem. All of these steps are key skills in the critical thinking process.

Students will participate in the scientific inquiry process, requiring them to learn, reason, think creatively, and make decisions to solve a problem. While playing a role as a member of a veterinary medicine team, students will:

- Gather data about a grizzly bear with a medical problem
- Develop a diagnosis (hypothesis) as to the nature of the problem
- Re-evaluate their hypothesis when presented with new data
- Plan an appropriate course of treatment to solve the problem

IMPORTANT: This is a self-guided exploration for you and your students. The goal is for you to guide your students through a critical thinking process and for them to develop reasonable explanations to the data they gather. There are no definitive right and wrong answers in this process. Please assure your students that science is a way of thinking and finding wrong conclusions is just as important as finding conclusions that prove to be true.

WHERE TO GO

The program will take place at the Sarah Allison Steffee Center for Zoological Medicine. Upon entry to the Zoo, please proceed to this exhibit (a directional map is provided at the end of this guide). Upon arriving, but before entering the building, head to the patio to the right of the entrance and locate the locked wooden crate. **The code to unlock this crate will be provided by email upon registering.** Retrieve all of the veterinary bags inside of the crate and head inside. If you run into any issues, please call the Zoo's Registration Office at (216) 635-3391.

GETTING STARTED

Your group will need to be split up into smaller groups of four (4), as each group member will assume the role of a member of the Zoo's staff working to care for a sick animal.

Each veterinary bag will contain an ipad and items that each group will need throughout the program to diagnose and treat a grizzly bear with a medical issue. The group will be prompted by the ipad to utilize these items throughout the program. They should wait until they're prompted and keep everything together as they move through the program. The very first thing they should do is take the ipad out of the bag and turn it on. Each ipad will be pre-set to be open to the Vet Bag app.

DURING THE PROGRAM

The groups should remain in the Sarah Allison Steffee Center for Zoological Medicine. They should find a spot somewhere in the building to sit down and work as a group. If they move throughout the building, they should remain together and keep the contents of their bag together. Please note that the exhibit will be open to regular Zoo day-guests.

The program is designed to take about an hour to complete.

ENDING THE PROGRAM

As each group finishes, have them check their bag to ensure each of the following is there before turning it in:

- ipad
- xray
- calculator
- plastic syringe
- plush grizzly
- felt bag containing grizzly tooth in jar

Once the whole group has finished the program and each bag and its contents are accounted for, place all bags back into the wooden crate outside and lock it. If you run into any issues, please call the Zoo's Registration Office at (216) 635-3391.

PRE-ACTIVITY DISCUSSION POINTS

The following discussion points have been provided to ensure your group gets the most out of this program and are set up for successful completion.

Explain what the Sarah Allison Steffee Center is and why it's important:

- This is the veterinary hospital where the Zoo cares for and treats most of the animals that live here.
- Sick/injured animals come to the hospital, but the veterinary staff also does regular medical check-ups (like how we go to the doctor once a year for a physical or check-up).
- The Zoo does all it can to care for the animals that live here.
- There are many people that work in the veterinary hospital. They have various careers that dictate their jobs or tasks. For example, we have multiple veterinarians whose job includes animal check-ups, writing and keeping medical charts, and visiting our larger animals at their habitats.
 - You can ask, what other jobs or tasks might someone have whose career is being a veterinarian?

Ask the students, what happens when you get sick?

- When you get sick, what do you do? Where do you go? What do you tell the doctor?

Ask the students, what might be different when an animal gets sick?

- Can they tell us what's wrong? No!
- Therefore, we need to go through a process to try to figure it out based on things like observations, bloodwork, how they respond to medicine, etc.

Explain the general aspects of the program:

- Each group member will assume the role of a member of the Zoo staff working to care for a sick animal.

1. Veterinarian – treats animals when they’re sick or injured, provides preventative medicine and check-ups, etc.
 2. Veterinary Technician – assists the veterinarian in the performance of their duties (a Veterinary Technician is like an animal nurse)
 3. Animal Keeper – responsible for the day-to-day care of the animal
 4. Group Leader/Mystery Role
- They will be working together in groups to diagnose and treat a grizzly bear named Dakota.
 - Each group will be assigned a bag with an ipad in it. The ipad will be used to instruct them as they move through the program.
 - They should keep everything together and the ipad will tell them when to use the items in their bag.
 - Encourage them to read the instructions carefully.
 - The first thing they should do is find a spot somewhere in the building to sit down as a group. The second thing they should do is get out the ipad and turn it on.

SUPPLEMENTAL INFORMATION

BEFORE YOUR VISIT

To prepare for your field trip, please take advantage of the following Zoo resources:

Cleveland Metroparks Zoo’s website – FutureForWildlife.org

DISCOVER: Animals & Wildlife Conservation

Check out the Animals tab to learn more about the animals you hope to visit during your field experience. Click on Wildlife Conservation to learn how you and your students can take action and join our community that’s working to secure a future for wildlife.

LEARN: Education

The Online Resource Library, under Education\Science & Research is where you can find more in-depth animal information, pictures, and videos. It’s a wonderful resource for students doing research on particular animal species. A variety of student activities can also be found in the Online Resource Library under Lesson Plans.

EXPLORE: Plan Your Visit

With 183 acres to explore, we want you to get the most out of your visit to the Zoo. Use the Zoo Map under the Tickets & Attractions tab to plan which habitats you would like your students to see.

EXHIBIT OVERVIEW

The Sarah Allison Steffee Center for Zoological Medicine provides world-class care for the Zoo's 3,000 animals. Since it’s opening on September 30, 2004, the Center supports groundbreaking research and engages Zoo visitors in veterinary care issues. The 24,000 square foot structure is divided into four areas: hospital, quarantine, conservation and science, and an education pavilion.

The hospital wing, dedicated to diagnosis, treatment, and surgical procedures has separate treatment areas for small and large animals, a radiology lab, clinical labs, and a pharmacy. New technological infrastructure enables the veterinary care staff to use the latest diagnostic tools, including the first CT scanner in any zoo.

A substantial portion of the center is devoted to quarantine areas. All new animals that enter the Zoo must be quarantined for a minimum of 30 days and undergo medical evaluations to ensure that they are healthy and won't

introduce disease to the animals already in residence at the Zoo. Isolation stalls specifically designed for hoofed animals, large animals, small animals, and primates help Zoo curators efficiently and safely facilitate animal transfers.

The conservation and science wing of the building houses offices and shared facilities for close collaboration between veterinary and research staff. Behavioral, reproductive, and endocrinology research takes place in a new laboratory. Graduate students conduct on-site research or become involved with local and international field programs. Support facilities include a computer lab, clinical laboratories, and a library.

The Center for Zoological Medicine offers unprecedented public access in an adjoining education pavilion – the Reinberger Learning Lab. Here, Zoo visitors learn about veterinary care at all stages of an animal's life, from delivery to departure. The displays feature hands-on interactives, tools-of-the-trade, and views to surgical suites where visitors might sneak a peek at a treatment procedure in progress.

The Center for Zoological Medicine sustains Cleveland Metroparks Zoo's commitment to conservation and reinforces the Zoo's role as a leading institution in scientific animal management.

AFTER YOUR VISIT – POST ACTIVITY DISCUSSION POINTS

Take time to recap the program and discuss their thoughts:

- Ask the students, what was wrong with Dakota?
- Before they knew for sure it was a tooth issue, what other ideas did they have?
- What were some of the tests they performed?

The Zoo's veterinary staff doesn't work alone to treat the animals that live there. Everyone plays a role.

- Education staff might report an abnormal behavior.
- Animal Keepers provide observational notes about an animal.
- Veterinary Technicians assist with analyzing blood and fecal samples.

Ask the students, how did you figure out what was wrong with Dakota?

- Made observations, asked questions, and made predictions just like a scientist.
- In science, we don't usually get the right answer on the first try. We make educated guesses based on what we see and observe and then test our predictions.
- These aren't just things we do in the classroom, but anytime we have a problem that needs solving. Being a scientist is a part of everyday life.

Review all of the people/roles that helped to diagnose and care for Dakota:

- Veterinarian
- Veterinary Technician
- Animal Keeper
- Dentist (mystery role)

Not only does the Zoo take good care of the animals that live there, but they also help to care for animals all over the world.

- The Zoo has a community of researchers and scientists that are doing work out in the field to help protect animals and habitats that need our help.
- But it's not just their responsibility, it's actually up to all of us to help preserve and protect a future for wildlife.
- For those that like to take action to help wildlife, there are plenty of examples on the Zoo's website, FutureForWildlife.org. Under Wildlife Conservation, they'll find many suggestions of actions someone can take to help wildlife and wild places.
- The *Future for Wildlife* program provides money, training, and materials to people working to conserve important species and the Zoo invites everyone to join this community.

TAKE ACTION BEFORE YOU LEAVE

Before you leave the Zoo, take lots of pictures of your group learning about animals and wildlife conservation. Share these pictures and learnings with others – post to social media, decorate a bulletin board, or include in a newsletter. And let us know what you did so we can celebrate with you! Spreading the word to others is one of the best ways kids can advocate for wildlife.

Additionally, if time allows, encourage discussion and challenge your group to think of a way they can help wildlife together. At Cleveland Metroparks Zoo, we believe taking action is as easy as ABC! Here are a few ideas:

- **A**DVOCATE – Use your voice and spread the word!
 - Share what you're doing to make a difference for wildlife through social media and invite others to join you.
 - Communicate to public officials, corporations and other decision/policy makers. Let them know that you care about wildlife and wild places and expect them to help us protect them. Personal letters are the most powerful – especially from children.
- **B**UY RESPONSIBLY – Never buy wildlife or products made from protected wildlife or their parts – or support vendors who sell them.
 - Make a commitment to be a smart shopper and choose certified sustainable products – Forestry Stewardship Council, Certified Sustainable Palm Oil, Bird Friendly, and Seafood Watch.
 - Reduce single-use plastics – bring reusable shopping and product bags, use your own travel mug, and always skip the straw. Encourage others to do the same.
 - Recycle your cell phone and other personal electronics during your next trip to the Zoo. The Zoo partners with Eco-Cell to recycle electronics to protect gorilla habitat and support gorilla conservation. Find the secure Eco-Cell collection box in the lobby of the Zoo's Education building (on your left when you enter the Zoo), or set up your own collection drive at your school or workplace.
- **C**ONTRIBUTE – Donate resources or your time.
 - Support wildlife conservation efforts by donating to the Future for Wildlife Fund.
 - Shop to support wildlife conservation at our Conservation Shop (in the Main Gift Shop and online).
 - Be a citizen scientist and help identify camera trap images from Ruaha National Park in Tanzania on Snapshot Ruaha.
 - Look for and report illegal or suspicious activity related to wildlife being kept, sold, or traded – if you see something, say something!

Follow the **red line** from the Zoo's Main Entrance to the Sarah Allison Steffee Center for Zoological Medicine.

