

Why They Do What They Do at the Zoo? Animal Behavior and the Brain

Teacher Workshop Confirmation Packet



Sponsored by:
The Center for Behavioral Neuroscience
Zoo Atlanta-Department of Education
Georgia State University

Zoo Atlanta Education Department 800 Cherokee Avenue SE Atlanta, Georgia 30315

education@zooatlanta.org

www.zooatlanta.org

404-624-5822

Dear Educator:

Thank you for your interest in our Staff Development Unit Programs at Zoo Atlanta. Our programs have been developed to assist teachers with incorporating animals and animal habitats into their classroom curricula. Teachers of mathematics, social studies, science and language arts can utilize the zoo's education programs to meet their classroom needs.

Enclosed in this packet you will find:

- **Reservation confirmation**
- **Workshop Description**
- **Itinerary of Workshop Events**
- **Preparing for you Zoo Visit**
- **The prior Approval Form**
(this form should be completed and signed by your principal or administrator if you are currently teaching- mail to address below).

Reservation Confirmation: Enclosed is your reservation confirmation. Please review the information listed in your confirmation for accuracy. Your name will appear on our attendance list for admission to this workshop.

Workshop TIPS: Please remember to dress comfortable for walking and in case of inclement weather. You may also want to bring a sweater to wear in the classroom. Snacks will be provided, however participants are welcome to bring snacks to have throughout the day.

Lunch is not included (unless otherwise specified)– there are several restaurants in the area that serve pizza, pastas and salads. There is a McDonald's, Ben & Jerry's, Nathan's Hot Dog and several concessions located on zoo groups as well.

LUNCH WILL BE PROVIDED FOR 'WHY THEY DO WHAT THEY DO AT THE ZOO' ON THURSDAY, JUNE 12 AND FRIDAY, JUNE 13. ALL OTHER DAYS LUNCH IS ON YOUR OWN.

Payments (if applicable): All payments must be received at least two-weeks prior to the program. Please make checks payable to: Zoo Atlanta and mail to the enclosed address.

Cancellation Fee: Please note that there is a \$15 cancellation fee per reservation for all cancelled reservations after your reservation is taken. Notice of cancellations must be received in writing – you may mail to: Education Dept. –Teacher Workshops, 800 Cherokee Ave. SE, Atlanta, GA 30315 or Fax to 404-624-5974 or call 404-624-5822.

Sincerely,

Reservations Staff

Zoo Atlanta
Education Department

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“Where Education Comes Naturally”

For a brief description of the program you will be attending, please review the descriptions listed below.

SCIENTIFIC SAFARI 1SDU

Open to Middle School and pre-service teachers

Date: Thursday, May 29, 2003

9AM-5PM

Additional 2-hour supervised project required at Zoo Atlanta

Cost: \$50 per teacher

Behavior Matters! Study animal behavior and collect real data through application of the scientific method. Learn how to apply the scientific method and why it is important for animal behavior research and conservation actions.

WHY THEY DO WHAT THEY DO AT THE ZOO? 4SDU

Open to high school and pre-service teachers

Date: Monday, June 9 – Friday, June 13, 2003 8:00am –4:30 pm

Follow-up workshops required Fall 2003 and Spring 2004 dates: tbd

Cost: FREE

“Mechanisms and Control of Behavior”- primarily aggression, reproduction, fear and social behavior Learn how the brain influences and controls animal behavior while linking the scientific method to animal behavior and neuroscience research.

AFRICAN CONNECTION 2SDU

Open to Elementary School and pre-service teachers

Dates: Thursday & Friday, June 26 & 27, 2003 9AM-5PM

Additional 4-hour supervised project required at Zoo Atlanta

Cost: \$60 per teacher

Take a trip to Africa! Learn about the animals, habitats and cultures of Africa through classroom activities and projects which feature Zoo Atlanta’s western lowland gorillas and other Zoo Atlanta African species.

AROUND THE WORLD IN TWO DAYS 2SDU

Open to Middle School educators and pre-service teachers

Dates: Thursday & Friday, July 17 & 18, 2003 9AM-5PM

Additional 4-hour supervised project required at Zoo Atlanta.

Cost: \$60 per teacher

Travel with Zoo Atlanta Around the World! Learn about animals and their habitats as we incorporate animals into math, science, language arts and social studies lesson plans.

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“Why They Do What They Do at the Zoo” ... Schedule of Events*

*subject to change without notification

Content:

- Will be connected to state QCCs and National Standards
- Content will encourage follow-up visits to Zoo Atlanta by teacher participants bringing their students.
- Content will be connected to Zoo Atlanta/CBN events and will encourage an understanding of animal diversity and behavior.
- Will include content that allows for testing and exploration of the scientific method

Each day we will incorporate the presentation of teacher and student content, sit-down classroom sessions, hands-on sessions, curriculum development and additional activities (tours, demonstrations, invited guests including many Zoo Atlanta curators and animal keepers and a zoo veterinarian). In addition there will be an ethics workshop, a grant writing workshop and “teach back” sessions.

The following is the **preliminary** schedule and may change as content is developed:

Monday June 9th: Introduction to workshop: presenters and content

Presenters: Laura Carruth, Ph.D., Dept. of Biology at GSU and the CBN
Kyle Frantz, Ph.D., Dept. of Biology at GSU and the CBN
Melissa Demetrikopoulos, Ph.D., CBN
Heather Caldwell, M.S., Dept. of Biology at GSU and the CBN
Zoo Atlanta curators and staff

A. Introduction to animal behavior and the behaviors that can be demonstrated by zoo animals

1. What is behavior?
 - a. Stereotypical behavior
 - b. Sign stimulus behavior
2. Types of behavior:
 - a. Aggressive behavior
 - b. Reproductive behavior
 - c. Maternal behavior
 - d. Social behavior
 - e. Fear
3. How do animals communicate?

B. Introduction to the brain anatomy and adaptations

1. Basic neuroscience
2. Gross brain anatomy
3. Sensory systems review

C. Tour of zoo

1. Diversity of animals at Zoo Atlanta
2. How to use the zoo as a resource for studying animal social behavior

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Tuesday June 10th: Behavior continued

- A. Behavioral scoring
 - 1. How to study and record animal behavior
- B. The mechanisms that control or initiate various behaviors
 - 1. How is behavior controlled?
 - 2. Neural and hormonal controls of behavior
- C. Animal behavior model: Crayfish aggression
 - 1. Crayfish kiosk
- D. Curriculum development
 - 1. Hands-on activities for studying the brain and behavior

Wednesday June 11th: Animal diversity, behavioral diversity

- A. Expansion of theme of brain diversity and control of behavior
 - 1. Examples of animal behavior
 - 2. Focus on invertebrates as an animal model for studying behavior
 - 3. Focus on vertebrates as animal models for studying behavior
- B. Science and teaching ethics workshop
- C. Grant writing workshop (maybe continue on Thursday)
- D. Curriculum development continued

Thursday June 12th: Development of teach back and web based exploration

- A. Curriculum development continued
- B. Web based exploration
 - 1. Using the web as a resource for exploring brain diversity and animal behavior
- C. “Teach Back” activities: teachers will develop activities and lesson plans based on workshop content and present them to each other
 - 1. Will include a written lesson plan developed by teacher participants
 - 2. Interactive oral presentation

Friday June 13th: Wrap-up

- A. Continuation of “Teach Back” activities.
- B. Evaluations

Preparing For Your Zoo Visit

In order to receive credit for your participation in the staff development program please follow the steps listed below:

- 1) **Please read all of the materials included in the packet.**
- 2) **If you have registered as an individual**, please fill out the Facilitator/Individual sheet, Prior Approval Form – if you are currently teaching and return to: Teacher Workshops Zoo Atlanta - Education, 800 Cherokee Ave. SE, Atlanta, GA 30315. If you are not teaching or you are a home-schooler - the prior approval form does not need to be returned.
- 3) Each program participant needs to receive a copy of the **Prior Approval Form**. The Prior Approval Form should be filled out, and then submitted to the individual within your system who is responsible for staff development unit approval. Once the Prior Approval Form has been signed and approved by your system it should be returned to the address below (Attn: Teacher Workshops) to begin processing. If it is not feasible for us to receive your material prior to the course date, please bring the signed and approved form on the first day of the workshop. **If you are currently teaching: Staff development unit credit cannot be given if the Prior Approval Form has not been signed and approved by your system.**
- 4) Once the participant has successfully completed the staff development course, he/she will receive a Course Completion Form. **PLEASE NOTE:** In order to receive the number of SDU's associated with this course, you must attend all workshop dates
- 5) After you have completed your hours – a Course Completion form will be mailed to you. Each participant will then submit the **Course Completion Form** to his or her school system Staff Development Office to be processed for credit.
- 6) **FULL PARTICIPATION** is required to receive sponsorship for this workshop. **Payment** for this workshop has been made possible through the Center for Behavioral Neuroscience (CBN) through the funds of a National Science Foundation grant. Failure to attend all workshop sessions will result in non-payment for your attendance through the CBN. Payment for partial participation (3 days or less) in the workshop will be charged to the participant at the rate of \$40 per day or fraction thereof.

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**Zoo Atlanta
Staff Development Program**
Application for Staff Development Unit Credit(s)

Prior Approval Form

Participant's Name _____

Home Address _____

School System _____ Certificate Type _____

Position _____ Date of Birth _____

Social Security Number _____

Program Description

I hereby certify this person for participation in the above-named Staff Development Unit Program at Zoo Atlanta.

Superintendent or Designee

System

Position

Date of Approval