



## **Ape Cognition Demonstration**

### **How to Use This Document**

The following text is similar to what a presenter will say during a public demonstration. You may follow along, but please note that the exact wording and sequence will vary depending on staff and animal activity. Feel free to ask the presenter questions after the program. Thank you for joining us today!

## **Pre-Demonstration Announcement**

Hello! In a few minutes, an ape will be using a touchscreen computer with one of our researchers. If you're interested in learning more, please find a place a few feet away from the windows. You may take a seat at the front or stand behind the people who are already seated. The demonstration will start shortly and will last five to ten minutes. If you have any questions before we begin, please let me know.

## **Introduction**

Welcome to Regenstein Center for African Apes at Lincoln Park Zoo! My name is \_\_\_\_\_, and I'm with the Learning Team. Today, one of our researchers will demonstrate how science and animal care go hand-in-hand at Lincoln Park Zoo.

This building is home to the Lester E. Fisher Center for the Study and Conservation of Apes, part of one of the largest zoo-based conservation and science programs in North

America. Fisher Center researchers are always thinking of creative ways to learn about apes. One of their methods involves inviting apes to solve puzzles on a touchscreen computer for a food reward. Recording the apes' progress allows researchers to draw conclusions about how apes learn and how zoos can provide them with excellent care and welfare.

The apes have already learned several puzzles. Examples include touching shapes and colors in a special sequence, matching symbols, or choosing pictures of food items they would like to receive. For today's session, the researcher will first demonstrate to us how the puzzle works before turning the screen toward the ape.



The researchers always work through a barrier out of respect for the apes' size and strength. They also wear protective masks and gloves to prevent the spread of germs. Gorillas, chimpanzees, and humans are all in the great ape family, and closely related species can carry similar kinds of bacteria and other microbes.



These sessions are always voluntary for the apes. Our researchers can present the screen, but the apes decide whether to participate. They are free to move away and do something else at any time. If the ape does choose to take part, each successful response is followed by a food



reward. With enough repetition, the positive reinforcement allows the ape learn how each puzzle works. If the puzzle is done incorrectly, the ape gets a

chance to try again and is never punished. Meanwhile, the computer logs every response and provides a detailed record of the learning process.

## **Social Structure**

You will usually see just one ape working with the keeper in this session. However, different ape groups have different structures. Gorillas and chimpanzees live in social groups called "troops." Lincoln Park Zoo is home to one chimpanzee troop. In a typical chimpanzee troop, multiple males and females live together. They have a dominant structure, but it is not as rigid as a gorilla's dominant structure. The chimpanzees will decide who goes first and second, and that might change each day. The researcher is very flexible and understanding of the chimpanzee's choice and follows their lead. Lincoln Park Zoo is home to one family troop and one bachelor troop of gorillas. In a typical family troop, a dominant male called a "silverback" lives with multiple females and their offspring. In a bachelor troop, several younger males live together with one being

dominant over the others. No females are present in a bachelor troop. Whether the researcher is working with the family troop or the bachelor troop of gorillas, the troop's dominant male will have the first chance to participate in the cognitive research session. The other gorillas will stay out of the way, but later they will be given their own turns, often in a separate area.

Just like humans, each individual ape is different. They learn at different paces, have different favorite food rewards, and may choose to participate in the cognitive research session frequently or not at all. The researcher adapts to the needs of each individual during the session.

## **Benefits**

The information gathered from these puzzles will help build our understanding of how apes think and learn. We will use that understanding to continue providing the best possible care for each individual at Regenstein Center for African Apes.

The experience is also very enriching for the apes. Enrichment is anything provided to an animal that encourages natural behaviors and adds variety to their day. Touchscreen puzzles are a great way for the apes to exercise the problem solving skills they would use in the wild. This could be enjoyable for apes in the same way that Sudoku or crossword puzzles are fun for us.

## **Conclusion**

As we finish up with today's session, I hope you have enjoyed learning how science can positively influence animal care and conservation. You can help apes, too. One of the primary threats to wild apes is habitat loss due to



extensive logging in African rainforests. When you buy wood or paper products, look for the Forest Stewardship Council (FSC) logo to be sure that they come from sustainably harvested lumber.

Once again, my name is \_\_\_\_\_, and I'm with the Learning team. Please find me if you have any questions. Thanks for being here! Your support helps us conserve wildlife.