

Title: It's All in the Attitude

Content Standard C (Grades 5-8): Behavior is one kind of response an organism can make to an internal or environmental stimulus.

Standard 2:

Indicator 4.2.5 Write descriptions of investigations, using observations and other evidence as support for explanations.

Standard 2:

Indicator 5.2.4 Keep a notebook to record observations and be able to distinguish inferences from actual observations.

Background:

Elephants are very social animals. The females (cows) and their young (calves) stay together in a group called a herd. The leader (matriarch) is the oldest female and the other elephants follow her lead. These families have strong bonds with each member having a clearly defined role. The male (bull) elephant tends to leave the cow herds at adolescence (around the age of twelve) and will alternately wander solo and/or join bachelor herds.

Elephants have certain observable behaviors just like other animals and by observing these behaviors a person can interpret the moods of the animal such as fear, anger, and excitement. Students need to understand the difference between an observation and an inference. For example, an observation uses one or more of the senses to gain information, while an inference explains an observation. Scientists are studying these behaviors to help them better understand elephants so they can help provide for the elephants' needs.

Purpose: To describe and catalog the visual behaviors displayed by African elephants.

Materials:

- Elephant behavior videos (available in the Indianapolis Zoo's Elephant Resource Kit)
- Elephant behavior observation chart (an ethogram) ([Appendix A](#)) ([Appendix B](#))
- Stop watch or a watch with a second hand
- Photos of elephants (click on <http://www.indianapoliszoo.com> and then on the "Education" tab on the top of the page. From the "Education" tab, click on "Project Elephant" and then click on "Elephant Biographies.")

Activity (pre zoo visit):

1. Discuss common behaviors exhibited by elephants.
2. Describe visual clues that distinguish the elephants.
3. Observe baby elephant video and record behaviors witnessed.

4. Assign an elephant for students to observe on the videos.
5. Monitor and record elephant behaviors during a 10 minute viewing of the baby elephant video.
6. Compare class list of elephant behaviors with the elephant behavior observation
7. chart (ethogram).
8. Repeat activity using the video on the adult elephants.
9. Compile a list of elephant behavior observations to be used at the zoo.

Activity (zoo visit):

1. Assign each student an elephant to monitor and record. (Note: we cannot guarantee that all the elephants will be in the public viewing area on the day of your visit.)
2. Divide students into teams of three. One student will observe and record individual elephant behavior on an ethogram, another student will observe and record elephant social behavior on an ethogram, and the third student will be the timer calling out 30 second intervals over a twenty minute period. Observers will record observations for each 30 second interval (for younger students, make this 30 second intervals over a five minute period.)
3. Switch roles so that every student has the opportunity to observe, record and time.

Activity (post zoo):

1. Review elephant observations with classmates who observed the same elephant.
2. Compile elephant observations (for each elephant) on one chart.
3. Compare and contrast common and unique characteristics of all the elephants.
4. Graph the number of elephant observable behaviors for each elephant.
5. Describe unique behaviors of the baby elephants.
6. Describe unique behaviors of the adult elephants.

Extensions:

1. Refer to the Indianapolis Zoological Society's website <http://www.indianapoliszoo.com> and click on the "Education" tab on the top of the page. From the "Education" tab click on "Project Elephant" and then click on the "Observer Diary" link and "a catalog of the visual displays used by the elephants". These displays show pictures of elephant behaviors complete with explanations of the behavior represented (e.g., the periscope sniff). This is a good activity to be completed before the zoo visit.
2. Have students (from the video and/or zoo visit) observe the elephants for social hierarchies.
3. Have students make their own video of the elephants at the zoo. Back in the classroom record elephant behaviors seen on the video.

Assessment:

1. Discussion of the common behavior observations of the elephants.

2. Discussion of the differences in behavior observations of the elephants.
3. Discussion of the herd structure (e.g., any observable social hierarchies)
4. Record of elephant behavior on observation activity budget chart.
5. Graph of the number of elephant observable behaviors with each elephant.
6. Design a zoo elephant habitat after viewing the elephant videos and after the zoo visit.

Resources/teacher notes:

1. Elementary students may wish to view and observe the baby elephants
2. Upper level students may wish to view and observe the adult elephants.
3. View Eyewitness Elephant video for additional information (suggested viewing for elementary students). (available in the Indianapolis Zoo's Elephant Resource Kit)
4. View National Geographic Elephant video (suggested viewing for middle school through high school level). (available in the Indianapolis Zoo's Elephant Resource Kit)
5. During elephant behavior observations a student can put N/A for not visible or not available behaviors.

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