

Monkey Village Teacher Activity Packet

Adaptations for an Arboreal Life

Activities in this Packet

There are three activities in this packet. The first two activities are meant to be completed before your visit to the zoo. The last activity includes classroom time before and after your visit as well as activities while you are at the zoo.

Standards

This activity packet is most appropriate for grades 2 and up. The following academic standards can be met by using the materials provided.

SC-S1C2-04, 05; SC-S1C4-01; SC-S2C2-02; SC-S4C1- 02, 03; SC-S4C2-01, 02;
SC-S4C3-02, 03; SC-S4C4-01, 02; W-S2C1; W-S2C4; W-S2C5

Learning Objectives

By completing these activities the students will learn...

- ✓ Animals adapt to their environment both with changes to their physical body structure as well as changes in behavior.
- ✓ Animals' adaptations are closely connected to their environment therefore changes in the environment are often difficult to overcome.
- ✓ Most monkeys (including those of Monkey Village) have adapted to an arboreal life.

Behavioral Observations

Goals

- Learn what behavioral observation is.
- Understand the information that can be gained through behavioral observation.

Materials

Pencil

Paper

List of questions

Jigsaw puzzle or several (choose some that are age appropriate for your class and won't take too long or too short of a time to put together)

Procedure

1. Divide students into pairs. Have each pair decide who will be "S" and who will be "T".
2. Have all the "S's" sit at their desks with pencil and paper. Their job is to write down everything they see their partners doing. Include body movements, body language, emotional expressions, facial expressions, talking, etc.
3. The "T's" will work as a group to put a jigsaw puzzle together (or any similar activity that you would like to substitute). You can also divide them into smaller groups and have each group work on a different puzzle.
4. Once the puzzle is together (or whenever you decide to stop) allow the observers a few minutes to answer the list of questions and then switch.
5. Afterward have a discussion about what the students learned during their observations.

Questions

Were there any behaviors, emotions, that you saw exhibited more than others?

Were there times that your partner seemed to not get along with others? What observations lead you to this conclusion?

Were there individuals that your partner seemed to not get along with so well? What observations lead you to this conclusion?

Does your partner like to stay in one spot or move around a lot?

How would you describe your partner's overall approach?

Do you think your partner liked or disliked this experience? Why?

Learning How to Describe Observations

Purpose

To help students will observe the details of an object

To help students will describe an object in detail

Materials

Several objects that are very similar in appearance per group of students (peanuts in their shells, raisins, rocks, hotwheel cars, etc.)

Pencil

Paper

List of descriptor words

List of questions (optional)

Prep

As a class, make a list of descriptive words one can use.

As a class brainstorm questions that should be answered when attempting to describe an object.

Procedure

1. Divide students into groups of 2-4.
2. Provide each group with 3-5 objects that are very similar (the more objects you provide, the more challenging the activity)
3. Allow a few minutes for the groups to examine all of the objects closely. They should be able to use all of their senses (except for touch).
4. *Optional: Allow the group a few minutes to talk about the objects that they have and what they look like.*
5. Have each student choose an object that they would like to describe without telling the rest of the group which item it is.
6. In his or her journal, each student should describe the object of his/her choosing with as much detail as possible. The goal is for the rest of the group to be able to determine which object he/she has described.

Adaptation for younger children

Have each group work together to describe an object and have another group try and guess which object they described.

Monkey Village: An Arboreal Life

The monkeys of Monkey Village are all arboreal (tree-dwelling) animals. In order to survive life in the trees these animals have gained several adaptive strategies including behavioral and physical adaptations. This activity gets students to consider what those strategies may be for arboreal life by comparing pictures of arboreal animals with their own experiences. Once they get to the zoo they will use their observational skills to determine which adaptations the arboreal animals actually have and ultimately use what they've learned to create the "ultimate monkey".

Purpose

To apply general knowledge of adaptations to a specific group of animals.
To encourage students to use critical thinking skills.

Materials

Pictures of monkeys
Pencil
paper

Procedure

Before Your Zoo Visit

1. Divide the class into groups of 3-5 students.
2. Explain to the class that when you visit the zoo you will be going to an exhibit called Monkey Village. The monkeys that live in this exhibit all live in trees. All monkeys that live in South America also live in trees.
3. Pose this question to the students: What are the challenges to living in the trees? What are the possible ways to overcome those challenges?
4. Make a chart with two columns: 1) Challenges of living in trees 2) Possible adaptations
5. Ask the groups of students to brainstorm and fill in the chart. It is important to note that there may be multiple possible solutions to each challenge. See below for suggested prompting questions.
6. After the students have been given appropriate time to brainstorm, pass out the photos of the Saki and Squirrel monkeys.
7. Ask students to look closely at the physical features of the animals. Ask: How has the physical body of the monkey helped them overcome some of the challenges of living in trees? Ask the students to add to their brainstorming list based on what they see physically.
8. Explain to students that during their zoo visit they will be able to observe these animals as well as some terrestrial (land dwelling) monkeys and other arboreal animals to help refine their list of adaptations.

Prompting questions

- How do you get food in the trees?
- How do you move around in the trees?
- How do you keep from falling out of the trees when you are sleeping?
- How do you get water?
- How do you protect yourself from predators?

During Your Zoo Visit

1. Ask students to make at least 20 minutes of observations at one each of these three exhibit lists:
 - a. Arboreal monkeys- Monkey Village
 - b. Terrestrial primates- Hamadryas baboons or Mandrills
 - c. Other arboreal animals- Bald eagle, Coati, Raccoon, Great Horned owl, Howler monkey, Spider monkey, Iguana
2. During their observations students should complete the chart on the next page.
3. There also may be some interactive panels as well as activity stations at Monkey Village that will help the students understand arboreal adaptations.

After your visit

1. In the same small groups as in the previous classroom activity, ask the students to use the observations they made at the zoo to add to their list of possible challenges and adaptations.
2. Once they have completed their list give them the challenge to create the ultimate tree-dwelling monkey. Combine as many of the adaptations from their list as they want, making sure to address all of the challenges on their list.
3. You can have students represent their “ultimate monkey” in either a drawing, sculpture, or in narrative form.

Wrapping it up

1. Hold a class discussion about the following question: Since these animals are so well adapted to live in an arboreal life, what do you think would happen to them if they no longer had trees to live in?
2. Be sure to emphasize with the class that since their environment is so important to them, it is important for us to help conserve the habitats that these animals live in.

Observation Chart

Challenge Noticed	Behavior or Physical Trait	Related Adaptation



Key Concepts

To have the most successful educational experience, your students should understand the following concepts before your visit to the zoo. Knowing the terminology is not as important as understanding the basic concepts they represent.

Adaptation - An alteration or adjustment in structure or function of an organism or any of its parts that results from natural selection (hereditary) and by which the organism becomes better able to survive and multiply in its environment

Behavioral adaptation - An alteration or adjustment in the behavior of an organism that allows the organism to better survive and multiply in its environment

Physical adaptation- An alteration or adjustment in the physiological structure of an organism that allows the organism to better survive and multiply in its environment

Arboreal – Living in trees

Terrestrial – Living on land

Internet Resources

This website compiled by the Singapore Zoological Gardens is a good source for general information on primates. <http://www.szgdocent.org/pp/p-main.htm>

The University of Wisconsin has compiled information from a variety of sources. This also includes fact sheets on specific species as well as conservation information. <http://pin.primate.wisc.edu/>

Primate Conservation Inc. focuses on primate conservation and solutions. <http://www.primate.org/>

The American Society of Primatologists has a website with educational and conservation information. www.asp.org