

Pre-Visit Activity: Make your own Antelope Horns!

GRADE LEVELS

K-2nd; California Content Standards for K and 1st

SUBJECTS

Life Sciences, Visual and Performing Arts

DURATION

Preparation: 10 minutes Activity: 30 minutes

SETTING

Classroom

Objectives

In this craft activity, students will:

1. learn about the structure and purpose of antelope horns.
2. construct a headband modeling a pair of antelope horns.

Materials

scissors
markers, colored pencils, or crayons
handheld hole punchers
toilet paper rolls, cardboard (1 per pair of students)
manila folders (about 4 per class)
yarn (1 piece per student)
masking tape (1 strip per student)
pictures of antelopes, especially the bushbuck

Vocabulary

- ❖ horn: the bony part growing atop the head of animals like antelope
- ❖ herd: a group of hoofed animals, such as zebra, antelope, and giraffes

Teacher Background

Found on the heads of antelopes, sheep, goats, and cattle, horns are made up of a bony core covered by a hard tissue called keratin. Keratin is the protein that forms fingernails, hair, and feathers. Horns are permanent, growing throughout an animal's life, so one can often use horn size to guess an animal's age. Horns come in different shapes; some are long and pointy, others are heavy, curving spirals. Some are smooth, and others have a corkscrew texture.

Although it varies by species, both males and females can have horns. If horns are really long and sharp, they might help an antelope fight against a lion or a leopard, but most antelope have smaller horns. Antelopes use horns to push others out of their territory, but they don't use them as weapons. Instead, when antelopes fight, they put their heads down, entangle their horns, and have a pushing war. In this way, antelope sparring is similar to arm wrestling.

By contrast, the antlers of animals like deer, moose, and elk are soft and fuzzy, have a branching shape, and are grown and shed each year. Rather than for protection, antlers are used almost exclusively for defending resources, such as territory and mates. Because this responsibility falls on the male deer, you won't find headgear on the females – another difference between deer and antelope.

Activity

Preparation

1. Collect cardboard toilet paper rolls or have students bring them in from home.
2. Keeping the manila folders closed, cut 1.5-2” wide strips extending from the bottom fold to the top edge. This creates about six 16-18” headbands when unfolded.
3. Cut a piece of yarn roughly 24” in length for each student.
4. Tear off a 6” strip of masking tape for each student. Hang strips on a table ledge for ease of access.
5. Make your own set of horns as an example craft.

Introduction

With the help of images and the following analogies, **compare** an antelope to other familiar horned creatures, such as goats, sheep, and cows, and **contrast** an antelope with common antlered creatures, such as deer and moose.

- ❖ **Shape:** Have students place their hands at their temples, and shape their fingers in forms that mimic the two structures. Horns are a single projection, antlers are branched. In an exercise similar to “Simon Says”, have students switch to the appropriate structure as you quickly recite an instruction: “Show me: horns! antlers! horns! horns! antlers!” Repeat with “Show me: deer! antelope! antelope! deer!” Consider combining the two for a challenge.
- ❖ **Texture:** Have students touch their soft cheek to represent fuzzy antlers, and hit their elbow to represent the hard bone of horns. Since horn bone is covered with keratin, have students touch their fingernails – that’s what a horn feels like!
- ❖ **Purpose:** Ask students why they think deer and antelopes have structures on their heads, and explain some of the reasons.

Procedure

1. Divide students into pairs.
2. Distribute one to each student: manila headband, piece of string, strip of masking tape. Distribute among pairs to share: toilet paper roll, hole-puncher, scissors, markers.
3. Make the craft as you lead students through the steps, using a student helper when an extra hand is necessary. The example below is for the spiraled horns of a bushbuck.
 - ❖ **Step 1:** Spread out the headband in front of you.
 - ❖ **Step 2:** Make a hole on either end using the hole-puncher.
 - ❖ **Step 3:** Write your name (or that of the antelope species) in the center with a marker.
 - ❖ **Step 4:** Holding the roll in one hand and scissors in the other, find the line twisting around the roll. Follow this line as you cut from bottom to top.
 - ❖ **Step 5:** Flatten the roll. Notice it is now shaped like a slanted rectangle. Have one partner hold the rectangle flat by gripping it tightly on two opposite corners.

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- ❖ **Step 6:** Have the other partner cut straight down the middle to make two strips of equal size. This makes two spiral horns, but the student pair needs four!
- ❖ **Step 7:** Trade roles with your partner; the cutter now becomes the holder, and vice versa. Cut the two strips in half, to make four thinner strips.
- ❖ **Step 8:** Flip your headband over so that your name is face down, but not upside-down. Take a peek underneath to check.
- ❖ **Step 9:** Notice the fold in the center of the strip. Place one horn on the left of this fold, and another on the right. Keep a little bit of space in between. Tape your horns to the headband.
- ❖ **Step 10:** Notice the tips of your horns are flat across the top. Trim a bit with your scissors to make them into a triangle point.
- ❖ **Step 11:** Lay the string from hole to hole, thread it through, and lift the headband up while holding both ends of the string.
- ❖ **Step 12:** Have everyone put their headbands to their foreheads, checking out each other's horns, while you tie them on and wrap up the activity.

Wrap-up

As you tie on headbands for the students, ask questions such as:

- ❖ What body part do you find on the top of an antelope's head?
- ❖ What are horns made of?
- ❖ What are horns used for?
- ❖ Do you think all antelope have the same type of horns?

Extensions

Many types of horns are simple to construct. A small toilet paper roll and a longer paper towel roll work well for twisty horns, which are found on the bushbuck and the bongo. Short horns like those of the steinbok, klipspringer, and dik-dik are easy to cut out using folders or thin cardboard, and one can even make long, thin oryx horns. Consider breaking students into 'herds' with different horns -- a charming way to create manageable field trip groups! In this case, have students write the name of their representative antelope across their headband.

If completed after your museum visit, this craft reinforces what students learned about animal body structure. Consider coupling the activity with the [Parts of an Antelope](#) matching game, or the [Am I Taller than an Antelope?](#) lesson.

Resources

Looking for some structure while visiting African Hall? Check out the [Guiding Questions and Focused Activities](#) available for use by the teacher or chaperone.

Correlated California Content Standards

Kindergarten

Physical Sciences

1a. Students know objects can be described in terms of the materials they are made of (e.g., clay, cloth, paper) and their physical properties (e.g., color, size, shape, weight, texture, flexibility, attraction to magnets, floating, sinking).

Life Sciences

2c. Students know how to identify major structures of common plants and animals (e.g., stems, leaves, roots, arms, wings, legs).

Grade One

Visual and Performing Arts: Visual Arts

2.3 Demonstrate beginning skill in the manipulation and use of sculptural materials (clay, paper, and papier maché) to create form and texture in works of art.

2.5 Create a representational sculpture based on people, animals, or buildings.