



Wild Kids

Wild Wapiti

STUDENT GUIDE

Wapiti is the Shawnee word for elk. It means "white rump." Elk are members of the deer family and belong to a larger group of mammals called ungulates. All ungulates have hooves made of keratin. Keratin is the same substance that makes hair, whiskers, fingernails, claws, talons and horns. Ungulates can be odd-toed or even-toed. Examples of odd-toed ungulates include the rhinoceros (three toes), horses and zebras (both one toed). Examples of even-toed ungulates include camels (two toes), hippopotamuses and javelina (both four toed). Elk also have four toes. Tracks made by elk generally only show the two major toes. The inside and outside toes are very short, so elk only walk on the two middle ones.



Elk have long muscular legs that help them run fast and escape predators. Black bears, coyotes and wolves prey upon young elk, which are called calves. Mountain lions and grizzly bears can kill an adult elk. An adult female elk, called a cow, can weigh up to 500 pounds. An adult male, called a bull, can weigh over 700 pounds!

Each spring bulls grow antlers. Antlers arise from a bony "bump" on the forehead called the pedicel. Growing antlers are covered by velvet. Velvet is fur-covered skin that carries blood vessels and nerves to the growing antler. Some antlers elk can grow over 4 feet in just 90 days!

In late summer and early fall, the blood stops flowing to the antlers and the velvet dies. At this time, the antlers stop growing. Elk rub their antlers against trees, branches, bushes and grasses to remove the dead velvet. This is the first time bull elk begin bugling to attract cows for mating. A bugle is a loud bellow that escalates to a squealing whistle and ends with a grunt.

In the late winter, the connection between the pedicel and antler begins to weaken. Shedding or casting of antlers then occurs. Both antlers can be cast on the same day or within a couple days of each other. In mid to late spring, the cycle begins once again.

HORNS OR ANTLERS?

Cattle, goats and sheep have horns. Deer and elk have antlers. What are the differences?

Horns are:

- made of a bony core covered by thin layers of keratin.
- slow growing and permanent.
- more like daggers than branches.
- usually grown by both sexes.
- grow in yearly "rings" that may mark animal's age.

Antlers are:

- made of fast growing bone.
- shed every year.
- usually grown only by males (although both sexes of caribou/reindeer grow antlers).
- often branches (but the branches do not signify age).

ELK TALK

Believe it or not but elk are among the noisiest ungulates. They can make many different sounds, each sound communicating something different.

High-pitched squeal: Newborn calf to its mother, who recognizes her calf by voice.

Bark: Warning of danger.

Chirps and mews: General communication among herd members.

Bugle: Bulls courting cows. Warn other bulls to stay away or willingness to fight.

Elk don't just communicate through sounds. They also use body language.

Dominance: Head held high.

Fighting: Standing on hind legs, ears held back.

Alarm: Head held high, body leaning forward, ears pointed forward or to the side, eyes wide open, nostrils flared open.

Herding: Ears and antlers titled back, neck stretched, nose up. Often followed by a bugle.

Use the reading to complete the crossword.

ACROSS

3. A predator of elk
6. Relative of moose, deer and caribou
7. Covers a growing antler
10. Female elk (plural)
12. Another name for plant-eater
13. Shawnee name for elk
17. A male elk warns other males
18. Another name for caribou
19. Bugle ends with this sound
20. Casting of antlers

DOWN

1. Male elk
2. Elk feet
4. Male ungulates grow these
5. Head position to show dominance
8. Elk walk on this many toes
9. Material of hooves and claws
11. General conversation among herd
14. Sheep and goats grow these
15. Head high and nostrils flared
16. A group of elk
17. Antler material





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TEACHING GUIDE

Overview

In this activity, students will read an article about elk. The article focuses on some of their body structures as well as communication. After reading, students can complete a crossword puzzle to test their comprehension.

Suggested Procedures

1. Print the worksheet above. If possible, print it double sided.
2. Ask students to read the article and complete the crossword puzzle on the second page.
3. As a class, discuss the answers to the puzzle. Pay particular attention to answers that the students may have struggled with.
4. To recap, have the students answer the following questions:
 - What are the differences between horns and antlers? Why do you think those differences exist?
 - What is the purpose of antlers?
 - What is an ungulate? What are the different types of ungulates? What might be the reason why different ungulates have different numbers of toes?
 - What advantages and disadvantages might there be to walking on your toes as opposed to walking on flat feet?

Grade

3rd

AZ Science Standards

- 3.L1U1.5

Science and Engineering Practices

- Obtain, evaluate and communicate information

Crosscutting Concepts

- Structure and Function