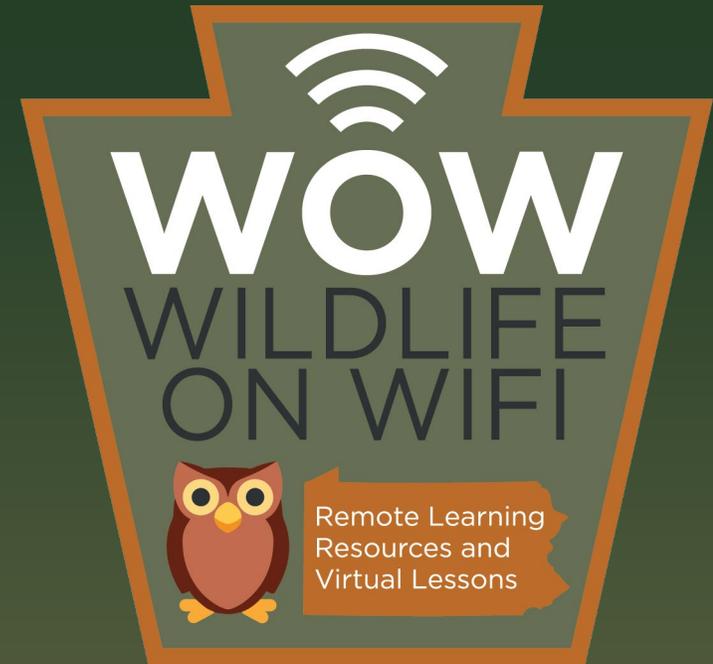




Wildlife on WiFi

Celebrate PA Mammals - Elk!

Weekly Lesson Plan





About *Wildlife on WiFi*

About *Wildlife on WiFi*

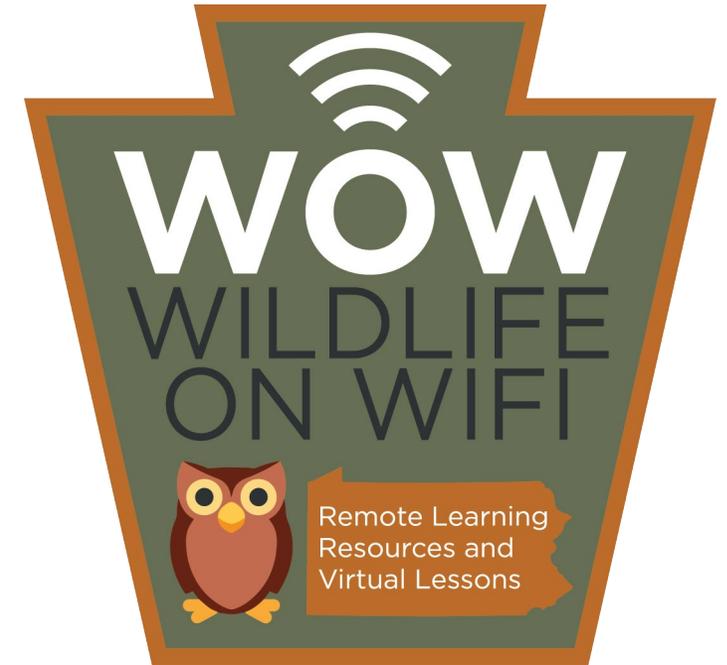
Wildlife on WiFi (“*WoW*”) seeks to connect Pennsylvania residents to their state’s wildlife from anywhere. To achieve this, *WoW* provides innovative online learning opportunities, virtual lessons and educational resources about wildlife and its conservation.

The *Wildlife on WiFi* online education hub features 50 lessons, activities, videos, story time readings, watchable wildlife livestreams, and more!

To connect with *Wildlife on WiFi*

Wildlife on WiFi is available online at <http://bit.ly/PGCWildlifeOnWiFi>

For questions or to schedule a virtual lesson, please contact wildlifeonwifi@pa.gov.





Wildlife on WiFi Weekly Lesson Plans

About *Wildlife on WiFi* Weekly Lesson Plans

Wildlife on WiFi weekly lesson plans provide day-by-day activities to keep children learning, thinking, and getting outside! Designed for K – 6 grades, these plans can be adapted by educators to suit their needs and grade levels.

Educators and parents may find them ideal to support at home and virtual learning, but they may also be used during regular in-person or partial in-person teaching.

Live virtual lessons from a Game Commission educator are a great way to cap off a wildlife week. To inquire about a virtual lesson, please contact wildlifeonwifi@pa.gov.





Elk Weekly Lesson Plan

Overview: Elk are Pennsylvania's largest mammal! This weekly lesson plan encourages students to learn all about Pennsylvania Elk while reinforcing observational skills, critical thinking, and core conservation, environment, and science concepts. Activities generally suitable for K – 6 with teacher adaptations based on age and teaching objectives.

Day	Recommended Activities
Monday	Learn About Elk
Tuesday	Elk: Celebrating 100 years
Wednesday	Elk Through the Seasons
Thursday	From the Field: What Do Elk Prefer To Eat?, Let's Ruminare
Friday	Elk Smart, Judging Distance. <i>Wildlife on WiFi</i> Virtual Lesson!



Day 1: Learn About Elk

Day 1 Activities

Begin the week having students learning all about elk. Students should read the [elk wildlife note](#) and highlight 3-5 facts they find interesting. After students have had a chance to read about elk, they can learn how elk arrived into Pennsylvania in 1913 by completing this [worksheet](#).

Students may find it helpful to visualize places where elk live. Have students search “Winslow Hill Elk Viewing Area” in [Google Maps](#) and select “satellite” view. They should see an aerial view of fields and forests where elk live in Elk County, Pennsylvania.

[Elk coloring page](#)

Access activities and resources by clicking the links in blue above.

Elk

Before settlers arrived in Pennsylvania, elk (*Cervus elaphus*) lived throughout the state, with concentrations in the northcentral and Pocono mountains. By 1867, the species had been extirpated. Ultimately it became extinct throughout its range, which included New York and New England. Today, elk inhabit portions of Elk, Cameron, Clinton, Clearfield and Potter counties. The animals are descendants of elk released by the Pennsylvania Game Commission between 1913 and 1926.

The word “elk” comes from the German “elch,” the name for the European moose. The elk is also called “wapiti,” an Indian word meaning “white deer,” probably referring to animal’s sun-bleached spring coat or its light-colored rump.

The elk is the second-largest member of the deer family in North America; only the moose is larger. Many Western states, several Canadian provinces, and a few eastern states – including Pennsylvania – support thriving elk populations, and in those places the elk is a popular big-game animal.

Biology

Elk are much larger and heavier than white-tailed deer. A mature male elk, called a bull, stands 50 to 60 inches at the shoulder and weighs 600 to 1,000 pounds. Females, or cows, weigh 500 to 600 pounds.

Elk have a summer and a winter coat. The summer pelage is short, thin and colored reddish brown. In winter, long, coarse guard hairs overlay woolly underfur. At this time, an elk’s body is tawny brown or brownish gray, with the neck, chest and legs dark brown, and the underparts darker than the back. Buffy or whitish

Strong muscular animals, elk can run 30 mph for short distances, and can trot for miles. They jump well and keen.

Cow elk often bark and grunt to communicate with their calves, and calves make a sharp squealing sound. The best known elk call, however, is the bull’s bugling. Bugling occurs primarily during the mating season. It consists of a low bellow that ascends to a high note, which is held until the animal runs out of breath, followed by guttural grunts. Cows also bugle at times.

Each year, a bull grows large branching antlers that sweep up and back from the head. In May, two bumps half an inch per day. The growing antlers are covered with a soft skin called velvet. This covering contains blood vessels which supply growth materials to the enlarging antlers.

Yearlings usually grow single spikes 10 to 24 inches in length, while older bulls may produce racks with main beams 4 to 5 feet in length and having five to nine tines to a side. An elk with a total of 12 antler points is called a “royal” bull; one with 14 points is an “imperial.” Before the autumn rutting season, the velvet dries and is shed or rubbed off. Bulls carry their antlers into late winter or early spring.

Elk primarily are grazers, eating a variety of grasses and forbs. In winter, they paw through snow to reach grass,

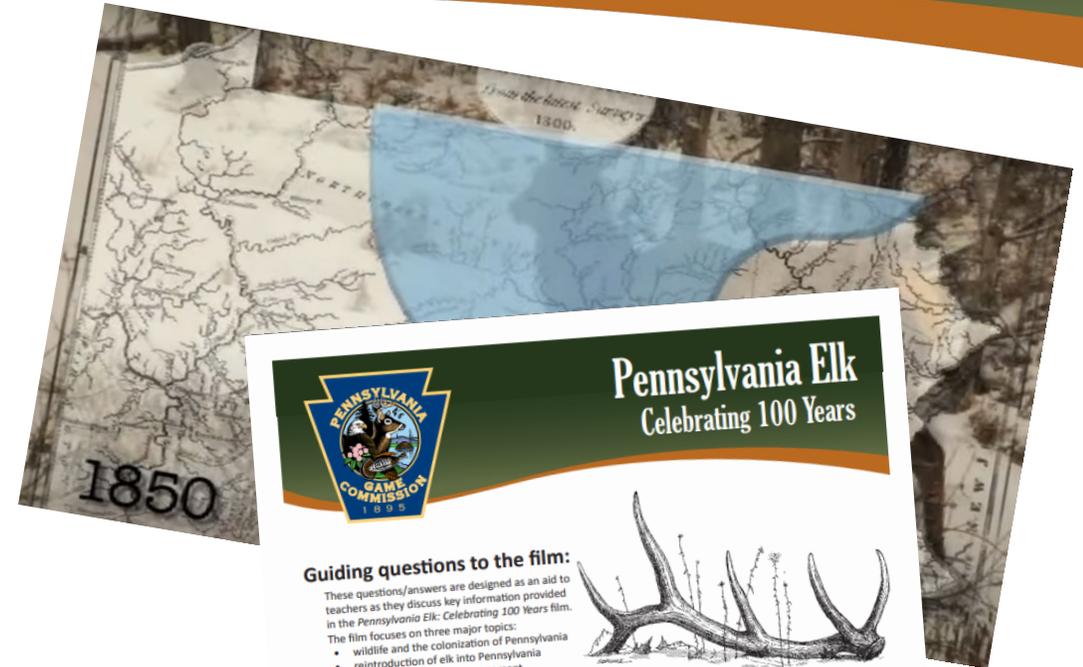


Day 2: Elk: Celebrating 100 years

Day 2 Activities

Students follow the trail of restoring elk to Pennsylvania by watching *Elk: Celebrating 100 Years* [video](#). Following the video, lead a discussion about wildlife and the colonization of Pennsylvania, reintroduction of elk into Pennsylvania, and elk conservation and management using this [question and answer guide](#) pages 33-38).

Video update: The current elk population is estimated to be around 1350 elk.



Guiding questions to the film:

These questions/answers are designed as an aid to teachers as they discuss key information provided in the *Pennsylvania Elk: Celebrating 100 Years* film. The film focuses on three major topics:

- wildlife and the colonization of Pennsylvania
- reintroduction of elk into Pennsylvania
- elk conservation and management



Wildlife and the Colonization of Pennsylvania (3 questions)

Pennsylvania went from a land of forests scattered with clearings and wetlands with numerous pristine streams and rivers to a developed state. Along with development came habitat destruction, logged-over forests, and polluted waters, which ultimately led to the loss of many wildlife species, including elk, by the 1900s.

1. How did Pennsylvania change from the 1600s to the 1900s?

In the early 1600s, when Europeans first came to the area now known as Pennsylvania, the land was covered in great expanses of deciduous and evergreen forests. Small clearings made by Native Americans or by windfalls were scattered throughout the forests. Rivers and streams flowed through the countryside. Acres of wetlands dotted the landscape. Pennsylvania's diverse ecosystems were home to bison, mountain lions, timber wolves, deer, foxes, bears, beavers, otters, eagles, herons, hawks, shad, and a multitude of other species, including the now extinct passenger pigeon. The Eastern elk was found in great numbers throughout the land.

As Pennsylvania was settled, the landscape was changed. Forests were cleared for farms and towns. By the end of the 1700s paper mills and saw mills were founded and coal was discovered. Small industries were starting to take a toll on the forests, wildlife, water, and land in several parts of the state, especially the southeast, but industry was just beginning. Canals, rivers, boats, stage coach, and ultimately railroads, enabled goods to be transported quickly from one part of the state and country to another. Oil was discovered in Titusville in 1854, fueling more and larger industries, mills, and manufacturing plants.

In the mid-1800s, logging became a huge industry, supplying wood and wood products to the growing population of Pennsylvania and the surrounding states. By the early 1900s, most of Pennsylvania had been logged and fires burned on the mountains. The great expanses of forests were decimated and most of the waterways were polluted. Almost all species of wildlife were on the decline, some even disappearing from the state.

Access activities by clicking the links in blue above.



Day 3: *Elk Through the Seasons*

Day 3 Activity

Does an elk's diet differ in the summer versus the winter? What is bull behavior like in the fall? Students answer these questions and more as they learn about elk behavior through the seasons and their adaptations that help them survive in this [lesson plan](#).

Access activities by clicking the links in blue above.

Elk Through the Seasons

Your name: _____ Date: _____

Directions:

1. Read the *Elk Through the Seasons* background information.
2. Complete the *Elk Behavior Through the Seasons Chart 1*.
3. Complete the *Eating Through the Seasons Chart 2*.
4. Choose either a bull elk or a cow and draw a diagram of their behavior through a year.

Chart 1 Elk Behavior Through the Seasons: record key behaviors in the spaces provided.

Season	Bull Behavior	Cow Behavior	Calf Behavior
Winter			
Spring			
Summer			
Fall			

Chart 2 Eating Through the Seasons: Elk must change their eating habits through the seasons to survive. Place an "X" in the boxes indicating the months elk most likely will find and eat the following foods. See examples below.

Food	Winter	Spring	Summer	Fall
Acorns				
Bark				
Evergreen needles	X			
Young grasses				
Grasses and other green plants		X		
Clovers				
Mushrooms				

Pennsylvania Game Commission: Managing wild birds, wild mammals and their habitats for current and future generations. www.pgc.state.pa.us

49



Day 4: *From the Field & Let's Ruminare*

Day 4 Activities

Following the video, use this [lesson plan](#) to allow students to explore the digestive system of an elk by placing the organs of the digestive system in order and completing the student worksheet.

Access activities by clicking the links in blue above.

Let's Ruminare

Your name: _____ Date: _____

1. Using the elk digestive diagram below, label the following parts of the elk digestive system. Label the skull, omasum, esophagus, reticulum, abomasum, intestines, rumen.

ow does





Day 5: *Elk Smart Judging Distance*

Day 5 Activities

Several hundred thousand people visit the small town of Benezette, Pennsylvania for a chance to view wild elk. Students can learn how to view wildlife (elk) responsibly by researching the Game Commission's *Elk Smart* campaign. Have student visit the [Elk Smart page](#) and watch this [short video](#) to answer the following 4 questions:

1. What is Elk Smart?
2. How far away should people stay from elk?
3. List two reason why you should never feed elk.
4. What should you do if you see someone acting carless around elk?

Activity: Have students measure 100 yards from a starting point. At the 100-yard mark have students place an object. Have students return to the starting point and look at the object placed to gain a sense of how far away 100 yards is. **Or** place several objects at different distances from a starting point, with one object 100 yards away. Have students guess what object is 100 yards away. Give students the correct answer.

Access activities or resources by clicking the links in blue above.



To cap off the week, consider a virtual ***All About Elk*** lesson from a Game Commission educator. To inquire, please contact wildlifeonwifi@pa.gov.



Thank You!

Questions or Comments?

Let us know at wildlifeonwifi@pa.gov.