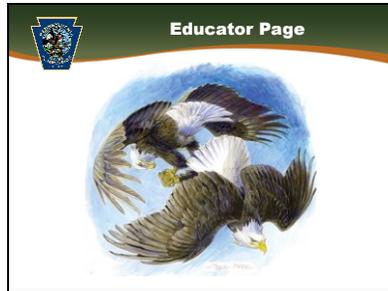


Slide 1



Summary: Students will learn the natural history of the bald eagle and its significance as our national symbol.

Subjects: Environment and Ecology, Civics and Government

Suggested Grades: K-5

Duration: 30 minutes

Objectives: Students will be able to:

- Explain the difference between threatened, endangered, and extinct organisms
- Describe two ways in which the bald eagle represents the United States of America
- Learn to identify the bald eagle by sight and sound
- List several facts about the bald eagle

Method: PowerPoint Lesson and/ or hands-on presentation, use script to teach lesson.

Materials:

Bald Eagle: National Symbol

PowerPoint (included)-begin on Slide 3

To enhance the lesson, borrow the following materials from the Game Commissions Northcentral office:

- Replica apple, orange, and a lemon
- Bald eagle life-size silhouette
- Replica bald eagle egg, skull, and talons
- Bald eagle nest representation (string formed in the shape of a circle with a 5-foot diameter)
- 1 quarter and/or 1-dollar bill
- Download Celebrating Pennsylvania Bald Eagle and Elk Reintroductions Educator's Guide from pgc.pa.gov (additional lesson plans and background information)



Background:

About the Pennsylvania Game

Commission: The Pennsylvania Game Commission formed in 1895 during a time when wildlife was dwindling because of unregulated hunting and habitat destruction. The Game Commission was established to protect the remaining wildlife and replenish some of the species that were extirpated or had very low numbers. The mission of the Pennsylvania Game Commission is to manage and protect wildlife and their habitats while promoting hunting and trapping for current and future generations. The Commission accomplishes their mission through wildlife protection, monitoring wildlife populations, establishing laws and regulations, setting seasons and bag limits, establishing and maintaining habitat, and informing and educating the public. The Game Commission is mostly funded by hunters and trappers and does not receive state General fund appropriations. The Game Commission owns and manages over 1.5 million acres of land called State Game Lands (SGL). These lands are purchased primarily to ensure wildlife has access to suitable habitat and the public has access to hunting and trapping areas. These lands are also used by secondary users for hiking, wildlife watching, and other recreational activities.

About Pennsylvania Bald Eagles: Eagles are a large bird of prey, which are part of the hawk family. Bald eagles are active during the day, have a hooked beak and curved talons. Once federally listed as endangered, bald eagles are a true conservation success story. During the 1970s, only three active bald eagle nests existed in Pennsylvania. A successful reintroduction program occurred between 1983 -1989, when 88 eaglets were removed from nests in Saskatchewan, Canada and transported to Pennsylvania and raised through a process called hacking. Hacking is a term used to describe raising birds in a semi-wild state. Today, biologist estimate over 300 active nests in the State. Bald eagles were federally listed as

endangered in 1973; upgraded to threatened in 1995 and delisted in 2007. Bald eagles were delisted in Pennsylvania in 2014.

National symbol: The bald eagle was chosen as our national symbol in 1782 when it landed on the Great Seal of the United States. The bald eagle was chosen because the bald eagle is native to North America, its majestic beauty, great strength, and longevity.

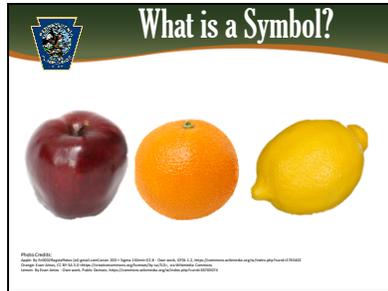
Resources for this PowerPoint:
Pennsylvania Game Commission, An Educators Guide to Celebrating Pennsylvania Bald Eagle and Elk Reintroductions; Pennsylvania Game Commission, Bald Eagle Wildlife Note; statesymbolsusa.org; bensguide.gpo.gov; www.va.gov; Bald Eagle:NPS.gov

Slide 3



Today we will learn about our national bird and the symbol of the United States of America, the bald eagle. Bald eagles and all other wild birds, mammals, and their habitats of Pennsylvania are managed by the Pennsylvania Game Commission. The Game Commission is Pennsylvania's state wildlife management agency.

Slide 4



Out of these fruits, which one would you say represents the sun? The lemon. Why? Because it is yellow. Explain a symbol is something that represents (or stands for) something else, such as an idea or belief. In our example, the lemon would symbolize the sun. **(optional: show students a replica of an apple, orange, and lemon)**

Slide 5



The symbol that represents the United States of America is the bald eagle. The bald eagle symbolizes strength, courage, and freedom. Bald eagles became our national symbol in 1782. The bald eagle is one of the most recognizable and admired birds of Pennsylvania and our country. The bald eagle is found on some of our money including the one-dollar bill and the quarter **(Optional: Show students the location of the bald eagle on the one-dollar bill and/or quarter and then pass the money around)**. Eagles have inspired people to be strong and courageous.

Slide 6



Bald eagles are huge, strong birds found only in North America. They are not bald like their name may imply. Their head is covered in feathers. The name “bald eagle” comes from the term piebald, which means the animal has dark and light patches (of feathers in this case).

Slide 7



When a bald eagle is less than 5 years old it is called an immature eagle. Their feathers are brown, mottled with white feathers on their wings and body.

Slide 8



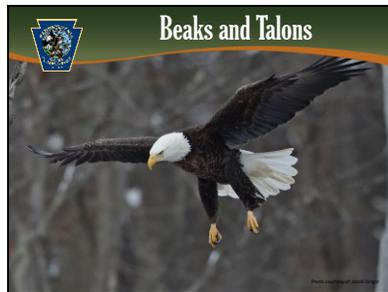
When the bald eagle is 5 years old or older it is called a mature eagle. The head and tail of mature eagles are covered with gleaming white feathers; its body is dark brown. Adult bald eagles are probably one of the most easily recognized birds in Pennsylvania.

Slide 9



Bald eagles are about 2 feet tall, weigh 8 to 14 pounds, and have a wingspan of 6 to 8 feet! **(Optional: Show bald eagle silhouette)**

Slide 10



Bald eagles have hooked bills. Their bills start dark and become more yellow over time. They have yellow feet with curved talons. Their legs are feathered halfway down. **(Optional: Show replica skull and talons)**

Slide 11



Bald eagles fly with strong, deep strokes or soar on flattened wings. Its large wings allow it to fly high and above the land.

Slide 12



Their eyesight is among the keenest in the animal world, five or six times sharper than a human's eyesight.

Slide 13



A bald eagle's call is a rapid, harsh cackle (**play sound**)

Slide 14



Fish make up 60-90% of their diet, either caught live or scavenged as carrion. Bald eagles also eat birds, small mammals, reptiles, amphibians, and invertebrates.

Slide 15



Eagles soar above the water or sit on a perch to hunt for their food. When they spot a fish near the water's surface, they swoop down and grab the fish with their talons. They use their hooked bills to help them eat their food (prey).

Slide 16



Sometimes an eagle will go after an osprey or another fish-eating bird that is carrying a fish, forcing it to drop its captured fish. The eagle will then grab the fish in midair. This behavior is known as "pirating" prey.

Slide 17



Bald eagles are super builders. They build a big nest called an eyrie high up in a large, sturdy tree near water. Nests are about 5 feet wide and 2 feet high. **(Optional: Show string formed in the shape of a circle with a 5-foot diameter).** Nests are made from branches and sticks that are often lined with grasses, moss, and twigs. Since eagles typically add to their nest every year, sometimes the nest gets so large the tree can no longer support it and the branches break and destroy the nest.

Slide 18



Females lay their eggs in February, March, or April; she usually lays two eggs.

Slide 19



The eggs are a little over two inches long and are plain white. **(Optional: Pass replica egg around)**. Both parents will incubate. The eggs hatch about 35 days after incubation.

Slide 20



Baby eagles are called eaglets. Eaglets are cared for by both parents until the fall when they can find food on their own. Prior to leaving the nest, they learn to walk, fly, and find food.

Slide 21



The bald eagle has long been a symbol of the nation, but it's also a symbol of the modern threats faced by wildlife. At one time eagles were in great danger. They lost places to live, water pollution killed the fish they ate, they were hunted illegally, and a poison (pesticide/DDT) that was sprayed on crops to kill insects, got into the food chain causing them to have weak eggs. Bald eagles were listed on the federal Endangered Species list.

Endangered means the plant or animal is close to extinction. Extinct means a plant or animal no longer exists, and threatened means a species is likely to become endangered within the near future.

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Slide 22



Around the same time bald eagles were listed as endangered, the poison was no longer allowed to be used and laws were created to clean up the polluted waterways to make the environment healthier for bald eagles and other wildlife.

Slide 23



Since the environment was starting to get healthier, the Game Commission began a program to bring bald eagles back into the State by reintroducing eaglets (1983-1988). A total of 88 eaglets were brought to Pennsylvania from Canada. They raised the eagles in a way that helped to keep them as wild as possible and not depend on people for survival.

Slide 24



The program worked! Bald eagles are doing well all throughout North America including Pennsylvania. The bald eagle is no longer on the federal endangered and threatened species list nor on Pennsylvania's endangered and threatened species list.

Endangered and Threatened Species Listing: Currently delisted.

Federally listed in 1973; upgraded to threatened in 1995 and delisted in 2007.

Delisted from the Pennsylvania Endangered and Threatened Species list in 2014.

Slide 25



Today, because eagles were protected, their environments made healthier, and the Game commission bringing eaglets into Pennsylvania more people have the chance to see this beautiful animal that symbolizes freedom, courage, and strength! Have you ever seen a bald eagle?

Slide 26



Wrap up and Class Discussions: Ask students all or some of the following questions:
What is a symbol?
What is the symbol of United State of America? Why?
Is the Bald Eagle currently on the Endangered and Threatened Species list?