

BASED ON A STORY BY THE PHILIPPINE EAGLE FOUNDATION

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EDUCATOR'S GUIDE

K-12 Education

ABOUT THE BOOK

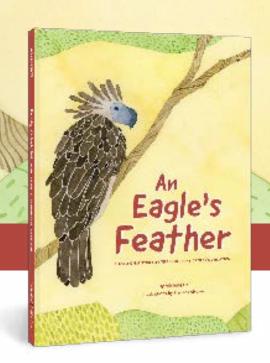
An Eagle's Feather follows the journey of Kalayaan, a Great Philippine Eagle, after he finds himself in the crosshairs of a hunter's rifle. Kind villagers help the wounded bird, bringing him to a rehabilitation center where he meets Pinpin, an eagle who was born and raised there. This story showcases the efforts of the Philippine Eagle Foundation, an organization that works to raise, rescue, and release these beautiful and highly endangered birds.

USING THIS EDUCATIONAL GUIDE

This guide features activities that target national education standards for a variety of subjects for grades K-5. Each activity lists which standards it meets:

- Science (SCI; Next Generation Science Standards)
- English Language Arts (ELA; Common Core State Standards)
- Mathematics (MATH; Common Core State Standards)
- Art (ART; National Core Art Standards)





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DISCUSSION QUESTIONS

BEFORE READING

Show the book cover and title, and ask:

- What do you think this book might be about?
- What do you know about eagles? Where do you think they live? Does this eagle look like the eagles you know? How is it alike? How is it different?
- What is an endangered species? What are some things humans can do to help endangered species?

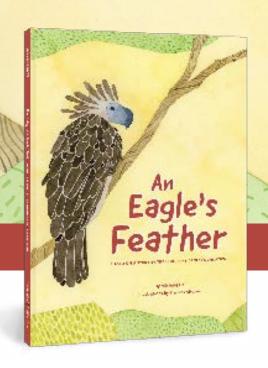
AFTER READING

After reading, ask:

- Where did this story take place?
- Do you think it is important to know about the Great Philippine Eagle? Why or why not?
- Is it important to care for endangered species? Why or why not?
- What other endangered species are you familiar with?

ACTIVITIES

HEALTHY HABITATS (ART,SCI) All birds rely on their habitat to provide the food, water, cover, and space they need to survive. If a place does not provide the right food, water, and cover in the right arrangement and amounts it needs, a particular species cannot live in that place. As a class or in small groups, create and fill out a habitat table with four columns (food, water, cover, space) and draw or write examples of the things a Great Philippine Eagle might need in each category (as seen in *An Eagle's Feather* or through online research). See a sample table on the website. Afterwards, provide small groups with a large poster board or sheet of butcher paper, and invite them to paint or sketch a mural of an ideal Great Philippine Eagle habitat.



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THERE'S NO PLACE LIKE HOME (ART,SCI) Revisit the page with the Great Philippine Eagle nest in *An Eagle's Feather* to compare it to the nests of birds you might see in your area (for photos of real nests, see the website). Ask:

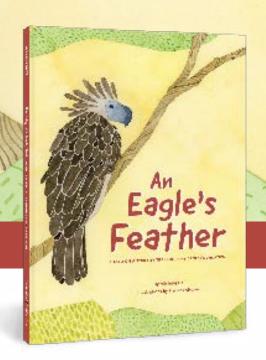
- What materials seem to make up this eagle nest?
- How is it similar to and different than other nests you've seen?

Explain that birds build nests in different ways and for different environments and there is huge diversity of nests. Have each student, pair, or small group build their own "nest" (whether a creative nest or a life-size model of a nest that they research). They can use natural materials that they collect from the outdoors (sticks, grass, twigs, leaves, pinecones, mud) or materials that you provide (popsicle sticks, pipe cleaners, string,

modelling clay) or a mix. Compare and contrast the nests they make with real nests.

SWOOPING FOR SUPPER (SCI) Great

Philippine Eagles use two primary hunting methods: still-hunting and perch-hunting. Still-hunting involves waiting near the top of the forest canopy and searching for prey before swooping in for the catch, while perch-hunting is gliding from higher to lower perches, then heading back to the top and starting over again. Visit the resource website for more information and videos on each of the hunting methods. (Continue on next page)



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Find a gymnasium or large outdoor space accessible for a game of predator tag. You will need a number of hula hoops or sidewalk chalk to mark the ground to represent trees, which you'll spread out randomly across the area. Designate two or three students as eagles for the first round of the game and have everyone else be a Philippine flying lemur—a favorite prey animal of the Great Philippine Eagle. On your call, instruct the lemurs to move between the "trees" while the eagles leave their perches to hunt. It's the eagles' job to "catch" (tag) all of the lemurs, but they can only do so if a lemur is off a tree! Otherwise, the trees are a safe spot for the lemurs. You may

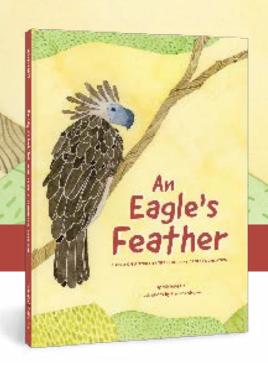
decide to have the "prey" brought back to the eagle perch and sit out until the next round, or to keep everyone active, they can become eagles and help out on the hunt. When there are only a few lemurs left, declare the round complete and start over with new eagles.



EAGLE EXPERTS (ELA,SCI) Did you know that there are 60 different species of eagle? The one you are probably most familiar with is the Bald Eagle. Draw a Venn diagram on the board, or have students create one individually or in groups, and compare the Bald

Eagle and Great Philippine Eagle. Consider factors such as size, coloration, range, diet, and conservation status. Then, check out the resource page to view videos and listen to sound recordings of each of the species.





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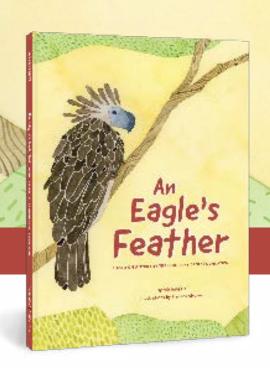
TRY WINGS ON FOR SIZE (ART,MATH,SCI) Great Philippine Eagles are one of the largest birds in the world and have wings wider than those of any other eagle. Their wings are typically reddish-brown and measure anywhere from 6 to 7 feet (about 180 to 210 cm). Try your own pair of eagle wings on for size by gathering a very large piece of cardboard, strong tape, a yardstick or meter stick, and scissors. Measure, draw, and cut wing outlines on your piece of cardboard, making each wing about 35–40 inches (90–100 cm) long. Then fold over the wing and tape the bottom together to wrap around the arm and make an "arm pocket" (see photos at the resource website for guidance). Allow students to take turns with the wings outdoors or into a large indoor space such as a gym. Try to imitate the still- and perch-hunting techniques from the "Swooping for Supper" activity! As an alternative or in addition, use butcher paper to outline the shape of a Great Philippine Eagle and have students compare the size and shape of the bird to their own.

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SHOWTIME! (ART, ELA, SCI)

Write and perform a shadow play of the story of the Great Philippine Eagle as it struggles to survive in its shrinking habitat. Use the silhouette puppets found on the website, or make your own. You'll need a nest, eagle, people, trees, construction vehicles, and maybe even fire. Use a flashlight or projector to cast light on a white screen or large butcher paper. Shadow puppets can be used behind the screen, or projected up front. Assign each person a role/character to play and get ready for a show!





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ASK THE CHARACTERS (ELA, SCI) In An Eagle's

Feather, Pinpin helps Kalayaan understand what happened to him and why he's in a cage. Split students up into groups of 2-3 and have them conduct an interview with the birds about their experiences after they have been returned to the wild. Assign group members the roles of Pinpin and Kalayaan and the interviewer. Depending

on the age and experience of

the students, the

interviewers can develop their own a set of questions, or you can develop the list

as a class. Encourage students

to answer the questions from the perspective of the birds, remembering that Pinpin was born in captivity and Kalayaan was not. Rotate the character roles to give everyone a chance to ask and answer questions. Set up this interview however you'd like; it might take place in the wild, or on the set of a news show. **BE CREATIVE!**

POWERFUL POSTERS (ART, ELA, MATH, SCI)



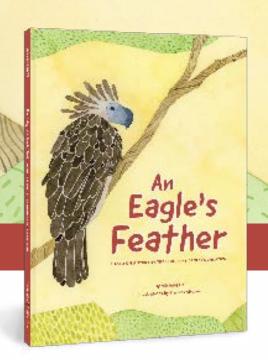
The Philippine Eagle Foundation (PEF) is the main organization working to protect the Great Philippine Eagle. Invite students to visit the Foundation's website to learn more about the eagle and work being done to protect it. Using sites like the PEF and other resources, have individuals or small groups create a poster about the bird and the importance of its conservation. Helping an endangered species depends on understanding its behavior, habitat, and diet as well as conservation threats, so include those details as well as maps, graphs, and pictures that will make the posters even more engaging.







Photo by Eric Liner



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communicating conservation (ART,ELA,SCI) Find a list of critically endangered birds at the resource website. Have students choose an endangered species from the list and learn more about it, including the factors that have contributed to the species' decline. Encourage students to create a PowerPoint or poster presentation, including information on the species (habitat, diet, life span, behavior, conservation status, and threats) as well as an image and map. After this experience, discuss as a group:

Is the world a safe place for all animals and plants?
Why or why not?

What does it mean for a species to be endangered?
What problems do endangered animals face?

Should we protect endangered species?

Why? (Some possible answers might include: saving species preserves healthy ecosystems, practical answers such as potentially losing valuable products, and aesthetic reasons such as beauty and diversity.)

What do you think or ...> how do you feel about these problems?



THIS STORY AND THESE ACTIVITIES HELP ILLUSTRATE THE IMPORTANCE OF BALANCE IN NATURE.

(ART,ELA,MATH,SCI) Decomposition helps keep nature in balance as well but humans use resources faster than nature can replenish and add wastes that are not easily decomposed. Set up an experiment to observe decomposition. Place organic products (an apple, a banana peel, a paper plate) and inorganic human-made materials (a glass jar, a plastic bottle) in an outdoor area that won't be disturbed. Make predictions about how long it will take each item to decompose. Observe your experiment and record your findings regularly for as long as you can. Take pictures or draw your observations alongside notes. Create a chart documenting changes over time. What can you conclude about these materials? Going further: Variables may impact your outcome of decomposition rates. Consider:

• Placing a second set of objects in an area that gets either more or less sun.

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- Protecting your fruits and vegetables from hungry critters. What differences can you see if you protect one set and but leave another one exposed?
- Paper goods come in different weights. Does a napkin or paper cup decompose at the same rate as a piece of cardboard?

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