

OVERVIEW

Coexisting with wildlife in urban environments requires us to be aware of the species living among us and to alter our behavior accordingly. This storytelling activity is meant to engage students in a fictional tale about the life of a city hawk. The story introduces how red-tailed hawks are adapting to live in urban environments.

MATERIALS

- City Hawk Script (pages 2-7)
- Additional props for storytelling (optional)

Facilitators: Read through the *Red-tailed Hawk Background Information* (pages 8-9) to be comfortable and familiar with leading the student discussions in this activity.



ACTIVITY

PREPARATION:

Read through the story several times to familiarize yourself with it prior to reading it with students. The storyteller can decide on the best environment to share the story: in a listening circle, at desks, inside or outside, etc. This activity can also include assigning students roles to act out, sections to read, or using puppets. Be creative in bringing the story to life with your group.

During the story, there will be moments for the students to mime actions in response to descriptions read by the storyteller. Below are examples. Ask your audience to create a mime action for each description below. Each time the storyteller says one of these phrases, the group will act out the respective mime together.

Baby hawk
Fuzzy hawk
Clumsy hawk
Nervous hawk

Little hawk
Flying hawk
Wise hawk
Gentle hawk

Strong hawk
Big hawk
Hunter hawk
Creative hawk

Hungry hawk
Happy hawk
Tired hawk
Curious hawk

THEME

Adaptation and survival of wildlife in an urban environment.

OBJECTIVES

Students will:

- Learn about the daily needs and challenges faced by urban red-tailed hawks.
- Analyze and interpret information to answer why a red-tailed hawk would choose to live in a city.

SUBJECTS

Biodiversity and humans, resources needed for wildlife survival, ecosystem relationships, human impacts on living and non-living organisms

SKILLS

Using evidence to support verbal communication, recognizing cause and effect patterns

ADDITIONAL BACKGROUND MATERIALS

Suggested for facilitator

- Wildlife Basic Information Packet
- WildlifeNYC website nyc.gov/wildlife

There are also three breaks in the story for the students to answer questions and reflect back upon the narrative. These question breaks are inserted as suggestions. They can be used at any time by the storyteller and tailored to fit their audience.

CITY HAWK SCRIPT

Part A

Have you ever seen a large bird soaring in the sky? What did you feel when you saw it? Curiosity? Fear? Excitement? Did you wonder what the bird might be feeling? In this story we will follow the life of a city hawk as he grows from a baby to an adult. Along the way we will hear about some things that the hawk struggles with, and discuss them together to better understand what life is like for a hawk in the city.

It is a beautiful sunny day in the city. The sunshine is reflecting off the windows and tall buildings, causing them to glimmer like blinking lights. On the third floor fire escape of a building sits a large bird's nest made of twigs. There is a lot of excitement and energy at the nest. The nest is home to two red-tailed hawks. Their egg has just hatched. A clumsy, fuzzy baby hawk has arrived for them to take care of.

Now, I need your help. Let's create an action for each word describing our hawk. What should we do when I say "baby hawk," (*decide on action with group*) What about for "fuzzy hawk"? And "clumsy hawk"? These words all describe our hawk right now, so remember these actions when I say those words. What are they again? Baby hawk. Fuzzy hawk. Clumsy hawk. (*repeat with group*) Now as our hawk grows, we will have to use new words to describe him. So listen carefully and be ready to act out each word on your own when a new word comes. Ready?

(The third adjective in the first line of each stanza will be new to listeners. When reading, emphasize this third adjective and pause for students to create their own mime action for it. Act it out yourself to encourage students to follow.)

Baby hawk. Fuzzy hawk. Clumsy hawk. (*group mimes actions after each description*)
Waiting in the nest for some food.
"Mom, Dad, where are you?
I'm hungry! Making me wait is so rude."

Baby hawk. Fuzzy hawk. Curious hawk. *(repeat actions, with new mime for the last phrase)*

Looking down over the edge.

“Wow! I’m up so high.

How do I get down from this ledge?”

Baby hawk. Fuzzy hawk. Tired hawk. *(continue mime action repetition)*

Watching mom and dad soar in the sky.

“Oooh! One day I’ll do that.

But not today, I’d rather sleep than try.”

Baby hawk. Fuzzy hawk. Nervous hawk. *(continue mime action repetition)*

Exercising his wings. Flap. Flap. Flap.

“Aah! I’m too scared to fly off.

How will I find my way home with no map?”

DISCUSSION QUESTIONS:

The baby hawk seemed scared to leave the nest without knowing the way back. How do you think mom and dad hawk are able to find their nest after they have been out flying and hunting? *(let students share their thoughts)*

- In the beginning who was feeding the baby hawk?
- What might mom and dad hawk have brought him to eat?
- Did they choose a good place to nest? Why or why not? Remember, they are on a third floor fire escape. What would you do if you found a hawk nesting on your house or apartment building? *(see background information)*
- Why did our little hawk not want to leave the nest? How was he feeling at the end? Why?

Part B

Over time, the baby hawk grew into a little hawk. What action should we do now when we hear “little hawk”? And “flying hawk”? *(decide on mime action with group)* The little hawk grew strong and brave enough to leap out of the nest and start flying. As a little hawk, he could now choose where he wanted to sleep each night. He still stayed very close to his original nest, but he never returned to it. He was still a very clumsy flyer, getting caught in branches as he landed, or standing on the ground out of exhaustion. Mom and dad stayed close by too.

Little hawk. Flying hawk. Clumsy hawk. *(continue mime action repetition)*

Flying from tree to tree.

“Weeee! This is so much fun.

But I don’t know how to land! Dad help me!”

Little hawk. Flying hawk. Curious hawk. *(continue mime action repetition)*

Discovering new creatures each day.

“This one runs, and barks, and has teeth.

It might be best if I stay far away.”

Little hawk. Flying hawk. Tired hawk. *(continue mime action repetition)*

Following mom as she hunts for prey.

“Boy, finding food can be tough.

Do I really have to do this each day?”

Little hawk. Flying hawk. Nervous hawk. *(continue mime action repetition)*

Watching humans walk close by below.

“Mom told me to stay far away.

It can be hard to tell friend from foe.”

DISCUSSION QUESTIONS:

It doesn’t sound like it is easy living life as a hawk. The little hawk complained about having to hunt every day. What foods do hawks eat again? *(see background information for some examples)*

- Why do you think he is having a hard time hunting for his favorite foods?
- What was the “creature” the little hawk saw that ran, and barked, and had teeth? Why do you think the little hawk thought it was best to stay away?
- Why was the little hawk nervous about humans? What kind of problems do humans create if they get too close to hawks?

Part C

The little hawk practiced flying and hunting all summer. He was becoming a wise and strong hawk. He was learning about the best places to hunt and the best trees and buildings to perch on. What action should we perform when we hear “wise hawk”? How about for “strong hawk”?

Wise hawk. Strong hawk. Hungry hawk. *(continue mime action repetition)*

Learning quickly which prey not to eat.

“I think that I should stick to squirrels,
Not the sick, poisoned rats on the street”

Wise hawk. Strong hawk. Hunter hawk. *(continue mime action repetition)*

Struggling again to catch prey.

“The blue jays are chirping loud warnings
and chasing all my meals away.”

Wise hawk. Strong hawk. Creative hawk. *(continue mime action repetition)*

Looking for a place to build a nest.

“In a tree, there will be shade,
And leaves to hide behind. But is that best?”

Wise hawk. Strong hawk. Curious hawk. *(continue mime action repetition)*

Looking again where to put his nest of sticks.

“On a building, it is uncovered.
Lots of sunshine next to a wall of bricks.”

DISCUSSION QUESTIONS:

As the hawk grew a little older, he had some tough decisions to make. He had to choose what type of food was safe to eat and find a safe location to build his nest.

- Which food did our hawk prefer to eat in the story? Why would he not want to catch a sick, poisoned rat?
- Why would the blue jays make a lot of noise when the hawk was around?
 - Have you ever heard a group of blue jays squawking loudly together? Next time, look to see if there is a hawk around.

After he had eaten, our hawk had to choose where to build his nest. When you are faced with a tough choice, what are the first things you think about to help you decide? Let's keep these in the mind as we talk about his options.

- If he built a nest in a tree, the nest would have some shade and be hidden from view. What other good things does a tree nest provide?
 - Is there anything bad about building a nest in a tree? Any dangers?

- If he built a nest on a building, it would have a sturdy base and lots of sunshine during nice weather. What other good things does a nest built on a building provide?
- Is there anything bad about building a nest on a human-made building? Any dangers?
- Let's decide together, where should the hawk build his nest? In a tree or on a building?

Part D

Our wise, strong hawk grew into a big hawk. With his strength and swift flying skills, he was now also a very successful hunter. Let's decide which actions to use when we hear "big hawk" and "hunter hawk."

While building his nest in/on the _____ (*fill in blank with what group decided*), he met a female hawk. Together they finished building the nest, and she was able to lay a few eggs. They took turns incubating them, or sitting on the eggs to keep them warm while waiting for them to hatch.

Big hawk. Hunter hawk. Gentle hawk. (*continue mime action repetition*)

Turning the eggs every day with his beak.

"It's hard finding time to go hunt,
Sitting on these eggs every day of the week."

Big hawk. Hunter hawk. Surprised hawk. (*continue mime action repetition*)

Hearing his egg make a low, crunching sound.

"The egg is finally hatching!
Better start hunting for food on the ground!"

Big hawk. Hunter hawk. Nervous hawk. (*continue mime action repetition*)

Watching people below form a crowd.

"Good thing our nest is up high.
Humans can be scary and loud."

Big hawk. Hunter hawk. Happy hawk. (*continue mime action repetition*)

Feeling both tired and glad.

"My little hawk is always so hungry.
It's real exhausting being a dad!"

DISCUSSION QUESTIONS:

The hawk became a dad! Just like the parents and adults in your life, the hawk will teach his young all that he has learned about how to survive.

- What have adults taught you to keep you safe? Or to keep you healthy?
- What did the hawk learn from his parents that kept him safe?
- The hawk encountered people quite often during his life. In what ways did they affect the hawk?
- Can you think of other ways people might affect hawks? Are these effects helpful or harmful?
- How can people change their behavior to avoid creating harmful effects?

Explorer Reflection

Conclude with students journaling and continuing the story of little hawk. Through drawing or writing, they can also explore and answer the question: Why might a red-tailed hawk choose to live in a city?

Red-tailed Hawk Background Information



In many ways, the relationship between urban residents and red-tailed hawks (*Buteo jamaicensis*) is the ideal of human-wildlife coexistence. City buildings and bridges provide ideal nesting sites for urban hawks. Hawks provide free pest control for the city, since a majority of their diet consists of rats and mice. In turn, New York City works to minimize the use of rat poison in areas where hawks nest so that they do not accidentally eat poisoned rodents. It is an arrangement that benefits everyone involved—except, obviously, the rodents.

And that's to say nothing of the enjoyment that red-tailed hawks have provided to New Yorkers throughout the years. Pale Male, a hawk that has called Manhattan home since 1990, has gained a following so large that he has been featured in films and children's books. Other hawks throughout the city have garnered their share of attention as well, inspiring popular live video feeds of their nests.

General Information

Red-tailed hawks are the most common hawk found in North America. They can be seen throughout the United States, Canada, Mexico, and Central America. Red-tailed hawks can be found in many different habitats, including open fields, deserts, parks, woodlands, and forests. In New York City, red-tailed hawks have been spotted soaring over Fifth Avenue, nesting inside Flushing Meadow Park's Unisphere, and hunting above Washington Square Park. They usually occupy the same territory on a year-to-year basis. The average lifespan of red-tailed hawks is 12 years in the wild, although they can reach 30 years in captivity.

Male and female red-tailed hawks can be aggressive in terms of protecting their nests and defending their territories. Their nests are comprised of twigs, pine needles, and other plant material they find in local parks and green spaces. Nests are often constructed on trees or on buildings about 13 to 70 feet off the ground. In New York City, nests have appeared atop the RFK Bridge and on the ledges of college buildings belonging to City University of NY and NY University. Both trees and human-made structures have pros and cons as nesting locations. Trees provide some protection from weather elements, but can be unstable during strong storms. Buildings and other human-made structures are more stable but provide very little protection against the elements and more access to potential human disturbance.

Appearance

Red-tailed hawks have rounded wings and a broad wingspan that can extend up to four feet across. Generally their outer feathers are a rich brown color, with a beige underbelly and a short, reddish-brown tail from which they get their name. Their legs and feet are yellow. Both males and females have similar colors and markings, though females are generally 25% larger than the males.

Behavior

Red-tailed hawks will have the same partner for years. They are sexually mature at three years old. During their mating season, which begins in early March, they perform aerial courtship displays. These displays involve the male flying up high, then steeply plummeting downwards towards the female. Occasionally the pair will interlock talons in mid-air and spiral towards the ground before eventually pulling away. Oftentimes while in flight, the male will offer and entice the female with prey. After the aerial display, both hawks will perch, groom one another, and then mate.

In early April, the female will lay one to five eggs. Males and females will take turns incubating the eggs for 28 to 35 days, until they are ready to hatch. The parents typically take care of their young for up to six weeks, until they are ready to fly. Once they can fly, the young will hunt independently of their parents.

Red-tailed hawks hunt during the day, and can sometimes be seen gliding over the city's parks looking for their next meal. Their sharp eyesight helps them spot prey in open areas. In New York City, hawks will perch on high platforms like telephone poles and wait for prey from above, then swoop down and capture them with their talons. They will adapt their diet to whatever is seasonally available. They mostly prey on rodents, reptiles, rabbits, squirrels, and other birds. Using their sharp, curved beaks, they tear their meals into smaller pieces for easier consumption. Red-tailed hawks can also steal food from other birds of prey including eagles and owls.

Fast Facts

- In 2016, there were at least 20 red-tailed hawk nests in Manhattan. In 2010 there were just eight (The National Audubon Society, 2016).
- Red-tailed hawks are top predators themselves and have no natural predators. Nonetheless, their eggs and nestlings are sometimes preyed on by great-horned owls, crows, raccoons, and red foxes.
- There are approximately 2.3 million breeding individuals worldwide. Nearly 75% of all red-tailed hawks spend portions of the year in the United States (Cornell Lab of Ornithology, 2015).
- Red-tailed hawks fall under the protection of the Migratory Bird Treaty Act. The possession, transportation, removal, or sale of hawks and their eggs is strictly prohibited.
- Pale Male, the famous red-tailed hawk and Manhattan resident, is believed to have fathered nearly 30 chicks in his lifetime (The National Audubon Society, 2016).
- Migration does not occur often, but can be triggered by inadequate food resources. When it does occur, it takes place in the late fall and early spring in either an individual or group capacity.

References

Cornell Lab of Ornithology (2015). All About Birds. Retrieved from https://www.allaboutbirds.org/guide/Red-tailed_Hawk/lifehistory

The National Audubon Society (2016). Fearless and Well-Fed, New York City's Red-Tailed Hawks Are Flourishing. Retrieved from <http://www.audubon.org/news/fearless-and-well-fed-new-york-citys-red-tailed-hawks-are-flourish>