

OVERVIEW

This activity encourages students to consider how humans and their behavior choices impact urban wildlife positively and negatively. Students will discuss solutions to conflicts that arise when humans encounter wildlife in urban environments. Solutions will include goals to **coexist**, living together peacefully in a shared space with urban wildlife.

MATERIALS

- Guidelines for Coexistence (page 4)
- Dilemma cards
- Wildlife Basic Information Packet
- Access to additional research tools

Facilitators: Download and read through the *Wildlife Basic Information Packet* to be familiar with and comfortable discussing the urban wildlife introduced in this activity.



ACTIVITY

PART A:

Begin with a discussion about what it means to **coexist**. Ask students to create a definition for **coexistence** as it relates to their immediate family members—parents, siblings, extended family, etc.

- How do you choose to **coexist** when conflict arises?
- How do you **coexist** at school and in the community?
- How can these **coexistence** principles extend to urban wildlife?
 - Share with students the Guidelines for Coexistence. How many match the previous principles students created and discussed?

THEME

Discuss, conduct research, and design solutions to **coexist** with urban wildlife.

OBJECTIVES

Students will:

- Analyze conflicts that arise during human-wildlife encounters, from multiple points of view.
- Investigate and evaluate impacts human behavior can have on urban wildlife.
- Explore why city residents should coexist with wildlife.

SUBJECTS

Ecosystem relationships, human impacts on earth systems, sustainability, biodiversity and humans, role of science, integrating engineering or technology to **coexist**

SKILLS

Engaging in evidence-based discussions, evaluating and constructing explanations, recognizing cause and effect patterns, developing solutions

ADDITIONAL BACKGROUND MATERIALS

Suggested for facilitator

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

As a group, read aloud the Dilemma #1 scenario below. Guide the students through the dilemma; identify problems and competing interests.

Dilemma #1: A forester is ordered to completely remove a tree because it is at immediate risk of falling. The tree is located next to a park path that is used continuously throughout the day by pedestrians and bicycle riders. The forester arrives on scene and notices the tree has a family of raccoons with a den inside. What should the forester do?

Discuss possible solutions and collectively try to agree on a response.

If inspiration is needed, possible actions are suggested below.

1. Try to scare raccoons out with loud noises or water spray from a garden hose before removing the tree.
2. Proceed with the task without delay. Park patrons need to be kept safe.
3. Call a supervisor and tell them about the raccoon family. Tell the supervisor the tree can't be removed because raccoons are vicious and scary.
4. Call a supervisor and tell them the path should be closed with caution signs. Raccoons could then stay in their den, and park patrons won't be near the tree if it falls.

Once the group has reached a decision on Dilemma #1, consider the situations below and proceed with another group discussion.

- Pretend you are the mother raccoon living inside the tree. What are your main concerns?
- Thinking about the raccoon's options, does this change how you think the forester should act?
- As a forester, what would you do if you found a robin's nest with young chicks in the tree slated for removal?
- As a forester, what would you do if there was an active red-tailed hawk nest in the tree?

If student responses are changing with the species, ask the class to discuss why their course of action is different. Re-evaluate if the initial action response should be different.

PART B:

Work in small groups of three to six students. Each group will have a dilemma card to discuss. Amount of discussion time is decided by the facilitator; using dilemma cards #6-16 will require additional time for independent student research. Students should consider: multiple points of view, all possible solutions, and pros and cons of solutions.

After discussing and collecting evidence, the group must agree upon one solution. Then create and present a two-minute skit, song, or spoken poem that highlights an aspect of their solution.

Allow the audience to ask questions after each presentation.

Additional questions the facilitator can ask:

- Has anyone on the team encountered this dilemma before?
- Does the audience agree with the presented solution? Why or why not?
- How easy was it to finally agree upon a solution to your dilemma? What were some of the other solutions you considered, and what were the strengths and weaknesses of those solutions?
- What, if any, arguments did you use to persuade team members to agree? What made you think the solution you chose was the best possible one?

EXTENSION ACTIVITY:

One role city government is tasked with is educating citizens about their city and the services it provides. New York City recently created the WildlifeNYC campaign (nyc.gov/wildlife) to address growing concerns about urban wildlife. Now it's time to see how students would handle this issue and explore why residents should **coexist** with urban wildlife.

As a team, create an education campaign targeting a specific neighborhood and focus on a wildlife species presented in the dilemmas. This project will require students to research the demographics of their neighborhood, including information such as languages spoken, average age, and population breakdown. Students can search the internet using the keywords "open data" or "census" and their city or state. They will use this data to inform how they design their campaign to reach residents. Students should further research biology and behavior information about the animal featured in their campaign. Be able to answer: Why should residents **coexist** with this species?

Give students adequate time to research and create a vision board for their campaign.

- Create a project timeline. Is there an end date or is it ongoing?
- Who is the audience? Residents? Children? Business owners? Media outlets?
- How will you measure the effectiveness of the campaign?

Proceed as far with the campaign project as you wish. End with a group presentation or continue to make it a reality.

GUIDELINES FOR COEXISTENCE

Coexisting with wildlife in urban environments requires us to be aware of the species living among us and to alter our behavior accordingly. The following are basic guidelines for **coexisting** with urban wildlife.

1. View all wildlife from a distance. Wildlife are exactly that—wild. The best way to ensure both your safety and the animal's is to keep your distance.
2. Do not feed wildlife. Wildlife can become a nuisance if people unknowingly or deliberately feed them. Feeding causes wildlife to lose their natural hunting instincts and approach humans for food.
3. Store all food and garbage in animal-proof containers. Urban wildlife are very resourceful, and will find ways into unsecured trash bins and pet food containers.
4. Protect your pets. Walk dogs on a leash and keep cats inside for safety. Also make sure pets' vaccinations are up-to-date.
5. Seal potential den locations. Block access to areas of your home, garage, or outdoor shed where wildlife might make their homes.
6. When you find healthy young or baby wildlife, remember: If you care, leave it there. Just like human parents, mom and dad are usually close by and can give the best care for their young.
7. Wildlife can be seen day or night. Some nocturnal species like raccoons, coyotes, and opossums can be seen out during the day. This does not mean they are dangerous or are carrying rabies.

Print single sided and cut out cards

Dilemma #1

Hiking with your friend through a park, you spot a fawn on the ground by itself. You look around for its mother, but do not find her. The fawn also doesn't move at all. Your friend thinks the fawn is hurt or lost, and wants to pick it up and bring it to an animal care center.

What would you do?

Dilemma #2

As you eat lunch in the park, you look up and see a raccoon walking along a path. A couple nearby also sees it. They begin to argue about what to do. One says seeing a raccoon during the day means it is sick, and believes that they should call 911. The other says it probably is just hungry, and suggests giving it potato chips. They ask you what you think.

What would you tell them to do?

Dilemma #3

At the dog run there is a large wooden platform. Dog owners see young skunks come out from underneath the platform with their parents in the evenings. The skunks are nocturnal. They like to find food at night.

How can dog owners and skunks both use the dog run and surrounding area safely?

Dilemma #4

A next door neighbor leaves cans of cat food out for strays that live on your block. One night while walking home you notice a raccoon eating the cat food. You walk by. The raccoon hisses and growls at you.

What should you do? How can you respectfully talk to your neighbor about what you observed?

Print single sided and cut out cards

Dilemma #5

It is early summer, and you like to play soccer with friends at the park on Saturday mornings. This time of the year, the field is filled with Canada geese eating and pooping. It is so annoying! Sometimes the birds hiss if you get too close. If young goslings are nearby, the geese are even meaner.

What can you do so you can still enjoy playing soccer in the park and the geese have a home?

Dilemma #6

Your local park wants to update and change its rules. One change will no longer allow people to feed wildlife. This would include removing birdfeeders, no stale bread for ducks, and no peanuts for squirrels.

Are you for or against this rule change? Why?

Dilemma #7

Your neighborhood suffers from a high rodent population. Introducing a feral cat colony is suggested as a solution.

Should your neighborhood support feral cat colonies as a pest management solution? Yes or no? Support your claim with evidence.

Dilemma #8

Residents complain to city officials about deer in their yards eating their gardens. They want them removed. Officials reply back saying the deer are native animals and are a part of the local ecosystem.

Is there value in living with white-tailed deer? How would you reply back to residents? Support your answer with evidence.

Print single sided and cut out cards

Dilemma #9

A community is petitioning the parks department to renovate an empty, overgrown lot into a recreation field. Wildlife advocates argue construction will displace a family of coyotes that den and raise pups each year in the field.

Evaluate the pros and cons of available options. What action is recommended? Support your solution with evidence.

Dilemma #10

Beautiful summer weather brings many people outside. Unfortunately they leave a lot behind, too. Overflowing garbage cans attract wildlife. This can lead to unsanitary conditions and unhealthy wildlife.

Propose a waste management solution that can keep both humans and wildlife healthy. Support your solution with evidence.

Dilemma #11

Airports are required to minimize risk of a bird striking an airplane. Solutions have included culling, habitat management, deterrence, and activity alert methods. Canada geese are often labeled the nuisance, but strikes occur with many species.

Devise a risk management plan that supports both human and avian life. Support your plan with evidence.

Dilemma #12

A school is expanding and will add a new building in a lot next to the current one. A small field with trees will be cleared before construction begins. There is evidence of wildlife living there. Residents have seen birds, raccoons, opossums, and squirrels.

Create a school expansion design that provides wildlife habitat. Support design choices with evidence.

Print single sided and cut out cards

Dilemma #13

Red-tailed hawks are not listed as an endangered species but are protected under the Migratory Bird Treaty Act. A pair has been nesting atop a window ledge on the same building for more than three years. The building this year needs to start a construction project to renovate the exterior.

Create a solution where both events can still occur. Support your claim with evidence.

Dilemma #14

A family of coyotes has lived in the neighborhood for years. This year some residents are asking city officials to remove them. They feel they are a danger; one resident complained he was being stalked by a coyote.

Devise an answer to this request that protects both humans and coyotes. Support your solution with evidence.

Dilemma #15

Using rodenticide is a legal method to control rat populations. However, some types of these chemicals can travel up a food chain and potentially harm any animal that ingests a poisoned rat.

Evaluate and compare available rodent population control methods. Create a holistic management plan for home and building owners. Support your plan with evidence.

Dilemma #16

Birds sometimes fly into glass windows. Scientists hypothesize this is because they do not see the window but are seeing the reflection as open space. This danger is increased during migration season.

Create a solution to prevent or reduce these collisions with buildings that are already constructed. Support your solution with evidence.