

OVERVIEW

Coexisting with wildlife in urban environments requires us to be aware of the species living among us and to alter our behavior accordingly, including keeping our distance. This activity lets students explore length and distance measurements and relate them to wildlife viewing safe distance guidelines, which vary by species.

MATERIALS

- Measurement tools
 - Tape measure (metric or U.S. standard), at least 16 meters / 50 feet in length
 - Ruler (metric or U.S. standard), one per pair of students
- 50 foot length of string, yarn, or rope per working group
- Student worksheet (page 5)
- Guidelines for Coexistence (page 6)
- Clipboards
- Pencils



ACTIVITY

PART A:

What is wildlife? Begin with a discussion about wildlife. Ask students to answer the following questions:

- What is wildlife?
- List differences between wildlife and other animals such as those found on farms, in zoos, and in homes as pets. How do each of these animals find food and shelter to survive?
- Is it safe to get close to these other animals or wildlife? If so, when?
- Compare and contrast wildlife vs. urban wildlife

PART B:

Proximity alters behavior. Demonstrate this with a student team of two. Stand face-to-face with a partner, an arm's length apart. Ask students how they feel. Are they comfortable, content, nervous, or scared?

THEME

Raise awareness of living alongside urban wildlife and strategies to **coexist**.

OBJECTIVES

Students will:

- Collect, organize, and interpret data.
- Compare and contrast collected data.
- Explore why **coexisting** requires personal behavior adaptations.

SUBJECTS

Human impacts on earth systems, modeling with math

SKILLS

Measuring lengths, calculating averages, quantitative reasoning, engaging in evidence-based discussions, science communication

ADDITIONAL BACKGROUND MATERIALS

Suggested for facilitator

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

Ask one partner to stand still and close their eyes. Without announcing it out loud, direct other partner to position themselves very close to their partner without touching them.

Ask the first partner to open their eyes slowly and not move. Ask students how they feel now. Are they comfortable, content, nervous, or scared? Why?

Students may each have different reactions. Ask one partner to slowly take small steps away from their partner until they feel comfortable again. Repeat demonstration with another student pair, or guide rest of group through this activity. Discuss with students how they felt at each position. Did partners have the same or different reactions?

End the discussion by relating their experience to a real situation. For example, can students remember a time when they saw a squirrel or pigeon on the ground nearby? What did they do? If someone tried to walk closer, what happened? Often the animal runs or flies away, possibly experiencing the same reactions students did in the previous activity.

Living with wildlife means understanding they are wild and need space. Urban wildlife is not inherently dangerous, but close human contact can be stressful for animals. They may react in unpredictable ways to protect themselves. The best way to ensure both your safety and safety of the animal is to keep your distance.

PART C:

For this portion students will be exploring length and distance related to wildlife viewing guidelines. Working in an open outdoor area works best so students can measure long distances. Working outside will also reinforce students' ability to visualize distances and increase general awareness of wildlife in their community.

In an open area, stretch out the tape measure to its full length, and lay it on the ground. Give a length of string to each pair/group of students and review the student worksheet. Students will be collecting two distances for each of the common wildlife species listed. The first column will be student estimates for safe distances, and the second column will be distances determined using the wildlife Rule of Thumb in Part D.

One student will hold one end of their string, while the other will be moving along the string keeping it tight between them. Call out one of the listed wildlife species on the worksheet. Ask students to spread apart to what they think is the minimum safe distance to be from that species, holding the string taut between them. Then partners need to bring their string to the tape measure and record the length in the first column labeled “Estimate.” Remember, do not let go before the distance is measured and recorded. Continue this process with each species listed.

Gather students together at the tape measure to discuss the results for each species. Call out a species and ask students to stand along the tape measure at the distance they recorded. Take a moment and observe where everyone is standing.

- What are the maximum and minimum distances recorded?
- Are there similar distances recorded?

Continue to ask these questions for each species.

PART D:

Now students will complete the second column on the worksheet using the Rule of Thumb guideline for wildlife viewing. This guideline suggests a safe viewing distance by using your thumb as a gauge. First, have one student pretend to be an animal from the worksheet. The rest of the group should face the “animal” while sticking an arm out, with their thumb pointed up. Closing one eye, each student should look down their arm and see if they can cover the “animal” with their thumb. If not, they are too close. Students should step back from the “animal” until their thumb completely covers it. The distance between the group and the “animal” can then be measured.

Next, break back into the groups from Part B, to find Rule of Thumb distance. Call out each species from the worksheet, and have one student in each group act as that animal while holding one end of their string. Challenge students to get creative representing sizes of the different animals (e.g. squirrels at 8 inches tall, white-tailed deer at 60 inches tall, etc.). Use rulers to measure these heights. While the student acting as the animal stands with one end of the string, the other partner should walk away with the string while determining the Rule of Thumb distance. Have students stop walking when their thumbs cover their partner who is acting as the animal. Then bring their string to the tape measure and record the number in column two labeled “Rule of Thumb.” Repeat this process for each species on the worksheet.

When all Rule of Thumb distances have been recorded, gather students again at the tape measure to discuss results. Students will place themselves along the tape measure to represent their Rule of Thumb distances. Have the students determine the mean between all of the estimates. Place the mean in the “Group Distance” box on the student worksheet. Continue with the remaining species, repeating this step each time.

Once a group distance is determined for each animal, end the activity by visually showcasing all these distances for the group, side by side. First, choose a student to represent each species from the worksheet. Then, have each of them move away from the group based on the group distance recorded for their respective species. Compare and discuss these results with students.

- Are these reasonable distances to keep from wildlife? Why or why not?
- Is this possible in your community?
- What happens to the group distances as the animals get larger?
- Why does wildlife need space?

End the discussion by asking students why they think it’s important to give wildlife space.

EXTENSION ACTIVITY:

Create an Urban Wildlife Safety postcard or brochure using the group distances recorded from the activity. Include information from discussions about why wildlife need space and should be observed from a distance. Share safety postcards with family and friends.

Student Data Worksheet			
Wildlife Species	Distance Measured		Calculate
	Estimate	Rule of Thumb	Group Distance Mean
Squirrel (Height: 20 centimeters / 8 inches)			
Raccoon (Height: 30 centimeters / 12 inches)			
Eastern coyote (Height: 105 centimeters / 40 inches)			
White-tailed deer (Height: 155 centimeters / 60 inches)			

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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.