

## Activity: Meet City Wildlife at the Interpretive Center

# City Wildlife

### Theme

There are many animals that live wild in and around cities of the Treasure Valley. For city wild life to flourish, we need to conserve the habitat, food supply (prey) , water, and shelter (nests) for their young.

### Goals:

1. To make participants more aware of the numerous and varied wildlife that inhabit cities in the Treasure Valley.
2. To make participants aware of the importance of maintaining habitat, food supply, water, and shelter for city wildlife.
3. To encourage participants to get outdoors in their own backyard to appreciate city wildlife.
4. To respond to the requests by third grade teachers using the Open Court reading series to provide a program focused on city wildlife.

### Learning Objectives

The participant will be able to:

1. Identify many of the animals in the Interpretive Center that live in or near the Treasure Valley.
2. Identify the kind of habitat that supports city wildlife.
3. Appreciate the need for food, water, and shelter to support city wildlife.

### Introduction

The Open Court reading series has been adopted by some districts in the Treasure Valley. The third grade part of this reading series has a unit titled City Wildlife with an image of a Peregrine on the front of the unit book. The following activity is designed to meet the goals and objectives given above. Interpretation is an art form, so do not expect to do each component of the activity, and do expect to do the ones you chose your way, or create other components not listed here.

### Materials

Discovery Room	<ul style="list-style-type: none"><li>○ Room Displays</li><li>○ Awesome Adaptations Box under cabinet</li></ul>
Biology/Ecology Room	<ul style="list-style-type: none"><li>○ Awesome Adaptations Box in the portable cabinet under the lights</li><li>○ Adaptation Analogies box in the in the portable cabinet under the lights</li><li>○ The Singing Birds of Prey and Large Birds of Prey boxes in the portable cabinet under the lights</li></ul>

- Please encourage the participants to work in small informal or formal groups on most of the questions posed in this activity.
- Give the groups time to formulate their answers by encouraging group discussion before raising hands for to give an answer

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### Discovery Room

Display	Suggested Component
Ceiling	<ul style="list-style-type: none"> <li>-Invite participants to try to identify one of the six birds on the ceiling. Most participants will identify the Bald Eagle. The table in Appendix A can be used to interpret the birds on the ceiling.</li> <li>-Challenge participants to find 1 or 2 features in the paintings that might be used to tell one bird from another (try having the participants lie on their backs for this part)</li> </ul>
Habitat Wall	<p><u>1. Habitat</u></p> <ul style="list-style-type: none"> <li>-Compare and contrast which habitats have which birds or how the birds are adapted to particular habitats</li> <li>-Compare and contrast how human changes to habitat affect food supply. Example: Removal of trees in undeveloped areas reduce prey for Sharp-shinned Hawk</li> <li>-Have participants predict how changes in habitat can affect birds of prey. Example: How does building along the Boise River affect Bald Eagles? How are Red-tailed Hawks affected when we create open fields lined by power/telephone poles?</li> <li>-Indicate which areas of the Treasure Valley cities have habitat to view the birds. Example: Hay fields along South Cole see Northern Harriers; Open fields along Franklin see Red-tailed Hawks; Lucky Peak/Boise River see Bald Eagles</li> </ul>
Habitat Wall	<p><u>2. Nesting</u></p> <ul style="list-style-type: none"> <li>-Have the participants find how many different types of nests are on the wall.</li> <li>-Have the participants relate the nest type to the habitat. Example: Why do Northern Harriers nest on the ground? and/or What is the danger of nesting on the ground?</li> <li>-The wall plaques do a great job of explaining the benefit of each nest strategy. Discuss the question plaques with the participants or have the participants investigate these plaques on their own with an adult from the tour.</li> <li>-What affects do humans have on birds of prey requirement for nesting? Example: Do Burrowing Owls dig their on burrows? What animals dig Burrowing Owl burrows? How does killing badgers affect Burrowing Owls? How does creating open space favor Red-tailed Hawks?</li> </ul>
Habitat Wall	<p><u>3. Prey</u></p> <ul style="list-style-type: none"> <li>-Have the participants identify animals on the wall that could be prey for the birds on the ceiling and the wall and which birds of prey might eat a particular prey. Example: Participants could identify the snake as prey. Which bird on the ceiling might prey on the snake?</li> </ul>

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**Discovery Room**

Owl Pellet Wall	<p><u>1. Prey</u></p> <ul style="list-style-type: none"> <li>-Challenge participants to find the Barn Owl (perched above the door)</li> <li>-Ask participants what should they look for if you think a Barn, Great Horned, or Screech Owl are nesting in a tree?</li> <li>-Ask participants to explain why an Owl Pellet is like a “bird hair-ball”</li> <li>-Inform participants, “Eagle have stronger acid in their stomach than Owls do.” Then ask the participants how this fact makes Eagle pellets different from Owl pellets.</li> </ul>
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**Conservation Room**

DDT Display	<p>The painting is a great example of a food chain, and the birds shown in the painting are all city wildlife that participants can value and appreciate.</p> <p><u>1. Prey:</u> Ask participants</p> <ul style="list-style-type: none"> <li>-to list the parts of the food chain shown in the painting from top to bottom (Peregrine Falcon, birds, bugs, plants, and sun).</li> <li>- if they have seen and can name the prey birds in the painting.</li> <li>- what the affect(s) might be on this food chain if the bugs were sprayed with a pesticide (chemical to kill bugs).</li> </ul> <p>Answers vary, but few young participants know the effects of DDT.</p> <ul style="list-style-type: none"> <li>- to look at the Peregrine nest on the rock and how DDT might be connected to the broken eggshell.</li> </ul>
Kestrel Box	<p><u>1. Habitat:</u> Ask participants</p> <ul style="list-style-type: none"> <li>- if they have every seen these birds? Answers will vary, but the majority will mention seeing the birds perched on wires overlooking an open area.</li> <li>-Do they know which the male/female is? Do they know a name for these birds?</li> <li>-For those participants that have seen Kestrels, ask them to describe the kind of habitat where they saw the bird.</li> <li>-to describe the kind of habitat in the area where they live.</li> </ul>
Kestrel Box	<p><u>2. Shelter/Nests:</u> Ask Participants</p> <ul style="list-style-type: none"> <li>-what kind of shelter/nests do these birds prefer.</li> <li>-Encourage those participants who describe open fields/areas to consider building or purchasing nesting boxes.</li> </ul>
Kestrel Box	<p><u>2. Prey:</u> Ask participants</p> <ul style="list-style-type: none"> <li>- to suggest what Kestrels might want to eat.</li> <li>- if they have ever seen these birds hunting. Answers vary, but many will describe them hovering.</li> <li>- if they know of another familiar small bird that hovers. Most will name the humming bird.</li> <li>-to flap their wings (arms) energetically for just 1 minute to imitate the hovering of a humming bird. Participants will tire easily. Explain to participants that Kestrels use the wind to hover to save energy when hover hunting.</li> </ul>

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**Biology/Ecology Room** (See Appendix B to on how type of flight relates to adaptations, and Appendix C to relate human made shelter to birds of prey)

Flight Display + Osprey & Great Horned Owl	<p><u>1. Habitat</u> -Ask participants to describe the kind of habitat where they might expect to find the six birds of prey?</p>
Flight Display + Osprey & Great Horned Owl	<p><u>2. Prey</u> -Ask the participants which bird in the Flight Display eats insects (Sharp-shinned Hawk, Barn Owl, Peregrine Falcon, and Swainson’s Hawk). Participants are often surprised to learn it is the Swainson’s Hawk. -Ask participants what the six birds eat. Help them establish the main prey they consume to set up the next question. -Ask participants how they imagine these birds of prey would find and capture their prey. -The above question ties in well with the activity that compares a Peregrine feather with an Owl feather. -Try some of the <u>Birds of Prey: Adaptation Analogies</u> to help explain how certain adaptations in birds of prey aid in capturing prey. This document is printed and available in a plastic holder in the hallway.</p>
Flight Display + Osprey & Great Horned Owl	<p><u>3. Shelter/Nests</u> -Ask participants to think of some places where they have seen any of the six birds nesting (see Appendix A). -Try making simple connections like: Osprey, Screech Owls = Boise River; Peregrines = Downtown Boise; Sharp-Shinned Hawks = backyards; Great Horned Owls = open areas with pine trees; Barn Owls = empty buildings -Ask participants which of the six birds will use human built nests, what kind of nests, and where they are placed. -Ask participants if they have suitable environment where they live to support a nest box for a bird of prey.</p>
Flight Display + Osprey & Great Horned Owl	<p><u>4. Water</u> -Ask participants which of the six birds of prey are found near water. Most will name the Osprey. Appendix A shows that besides Osprey, Peregrine Falcons and Screech Owls also utilize areas next to water.</p>
Migration Display	<p><u>1. Prey</u> -Have the participant(s) press the Barn Owl and Barn Swallow button at the same time. -Encourage participants to predict how each bird will migrate. Participants usually predict wrongly that Barn Owls migrate. -Try to invoke the participant’s imagination to help them understand why Barn Swallows migrate. -Have participants predict which bird migrates the most distance. Have the participants test their prediction.</p>

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**Biology/Ecology Room** (See Appendix B to see how type of flight relates to adaptations)

SNRA Display (skins, food web)	<p><u>1. Habitat:</u> Ask the participants</p> <ul style="list-style-type: none"> <li>-to examine the animal skins and predict which ones might be seen in a city (all the animals).</li> <li>-to explain their choice.</li> <li>-what kind of habitat is best for these animals.</li> </ul>
SNRA Display (skins, food web)	<p><u>2. Shelter/Nests:</u> Ask participants</p> <ul style="list-style-type: none"> <li>-which animals benefit Burrowing Owls? (Townsend’s Ground Squirrel and Badgers)</li> <li>-what happens if badgers and ground squirrels are removed from their habitat.</li> <li>-if they know the basic life cycle of the ground squirrels (above ground Feb- June, below ground July-January)</li> </ul>
SNRA Display (skins, food web)	<p><u>3. Prey</u> Ask a participant to</p> <ul style="list-style-type: none"> <li>-explain what the Food Web sign is trying to show.</li> <li>-identify the SNRA animals as herbivores, carnivores, or omnivores. (all are carnivores except ground squirrels are omnivors)</li> <li>-pick a bird of prey from the food web that could be seen around cities.</li> <li>-list the parts of the food chain for the selected bird of prey.</li> <li>-explain how the life cycle of the ground squirrels affects the birds that prey on them.</li> </ul>
Beaver	<p><u>4. Water</u></p> <ul style="list-style-type: none"> <li>-Ask participants to find the herbivore that lives in and around water in Boise. (Beaver)</li> </ul>

**Silhouettes**

Both Walls	<ul style="list-style-type: none"> <li>-Have the participants find at least 5 out of 11 birds of prey seen in and around cities (Northern Harrier, Sharp-shinned Hawk, Cooper’s Hawk, Red-tailed Hawk, Swainson’s Hawk, American Kestrel, Peregrine Falcon, Bald Eagle, Barn Owl, Western Screech Owl, Great Horned Owl)</li> <li>-With participants in four groups, assign the participants a pair of bird silhouettes to “observe.” Have a group spokesperson explain how to tell the birds apart.</li> </ul> <p>Possible pairs to assign:</p> <ol style="list-style-type: none"> <li>1. American Kestrel &amp; Peregrine Falcon, 2. Northern Harrier and Red-tailed Hawk, 3. Red-tailed Hawk &amp; Swainson’s Hawk, 4. Barn Owl &amp; Great Horned Owl, 5. Sharp-shinned Hawk &amp; Cooper’s Hawk, 6. Sharp-Shinned Hawk &amp; Peregrine Falcon</li> </ol>
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