



# Window Wipe-Out

Grade Level: 5-8

Subject Areas: science

Duration:

- Preparation - 10 minutes
- Activity - 50 minutes

Setting:

Classroom

Group Size:

unlimited

Materials:

• materials will depend on the method groups choose to construct their window bird strike deterrent.

Skills Used:

advocacy

Vocabulary:

conservation, migration

Project BEAK Links:

- [Birds and People - Conservation](#)
- [Adaptations - Migration Hazards](#)

## OBJECTIVES

- Students will investigate the threats to bird populations – including window strikes.
- Students conduct an experiment to determine which effort reduces the number of window strikes most effectively.

## Nebraska State Science Standards

- 8.4.5, 8.1.2

## BACKGROUND

One of the largest threats to birds is window strikes. Birds, while migrating or trying to escape predators, see the reflection of the landscape in the window and thus cannot see the window. Consequently, birds often fly into windows.



The reflection of trees, plants, and sky in windows make these structures hard for birds to see.

Many bird window strikes occur during migration. At this time, birds are concentrating on flying great distances. Or,

when birds are being chased by predators such as hawks, kestrels, or owls, they are focusing on escaping and do not realize the reflection in the window is just that – a reflection and not a safe place to fly.

Birds also fly into windows when trying to defend their territory. Not only are trees, plants, and the sky reflected, so is the image of the bird. Birds see their reflection and think there is another bird in their area. They will then either fly into the window trying to chase the “other” bird away or, they will peck at the glass trying to “attack” the other bird.

Bird window strikes are often fatal to birds. If the bird does survive, they are often injured (i.e. broken wing, cracked beak)

and less likely to survive. Or, birds that do survive a window strike are stunned for a few minutes and unable to fly. This leaves them vulnerable to predator attacks.

There are many simple things you can do to prevent or lessen the effects of bird window strikes. For example, you can:

- Close inside blinds to reduce reflection of the sky and trees. This also makes the window easier for the bird to see and avoid.
- Using soapy water in a spray bottle, mist the exterior of the window. When the water evaporates, the soap is left behind which reduces the reflection. Another option is to use bars of soap to dull the reflection on windows. Both options must be reapplied following rains.
- Window screens – thin mesh screens attached several inches from the outside of the window – reduce reflection and gives a bird which happens to fly into the window a cushion before hitting the window.
- Place bird feeders and bird baths away from windows – more than 30 feet is best. Or, if feeders need to be close to windows, place them less than 3 feet from the window so birds do not hit the window at full speed.
- Plant shade trees outside windows to reduce reflection.
- Tape silhouettes of hawks to the window. Some reports say a more effective way is to hang silhouettes from a string or allowing the silhouettes to move in the wind.
- Tape long strips of mylar or thin plastic to windows. The strips should be taped only at the top allowing them to blow in the wind.

Another option is to hang old CD's from the window allowing them to blow in the wind.

- Hang feather guards – a series of feathers attached to fishing line about 6-8 inches apart – vertically from a window. NOTE: It is illegal to possess feathers of many bird species. Feathers for this activity can be purchased at a local hobby or craft store.

### ACTIVITY

Begin the activity by asking students what some of the threats to wild birds are. Responses may include:

- disease
- habitat loss and degradation
- pollution, including pesticides
- historically unregulated hunting (by humans)
- windows
- power lines
- predators

Explain to students that although habitat destruction is the number one threat to bird populations, window strikes cause thousands of bird deaths each year.

Brainstorm with students ways in which people can prevent bird window strikes. Allow students to come up with ideas on their own; mention the ideas listed in the “Background” section only to help students brainstorm.

Discuss with students which methods of deterring window strikes are likely to be most effective. Why?

Explain to students that they will be conducting an investigation to determine which method is most effective at deterring window strikes.

Divide students into 4-6 groups. Each group should pick one method to investigate. Have groups gather supplies and construct their window strike deterrent method. Have each group choose a window to test their method. Each group's window should be approximately the same size and with approximately the same amount of reflection. If there are not enough windows which meet these criteria, have each group work on the same window for one week intervals switching methods each week.

Alternatively, you may ask students to work individually by having them take their window deterrent method

home and make observations each night.

It may be most effective to conduct these experiments during migration season (February-May and September -November) so to ensure more data.

Have students evaluate their method of preventing window strikes by looking for evidence of a bird window strike. These could include:

- A dead bird below the window.
- A mark on the window left by a bird – often scat or droppings left behind.
- Feathers stuck to the window.

Once all experiments have been conducted, have students share and analyze their data. As a class, determine which method is most effective in preventing bird strikes.

### EXTENSIONS

- Have students create brochures to educate the public about bird window strikes and methods they can use to prevent them.

- Once the most effective methods is determined from the investigation, have students construct enough to hang in every window around the school. Encourage students to make an extra one for their home.

### ADDITIONAL RESOURCES: WEBSITES

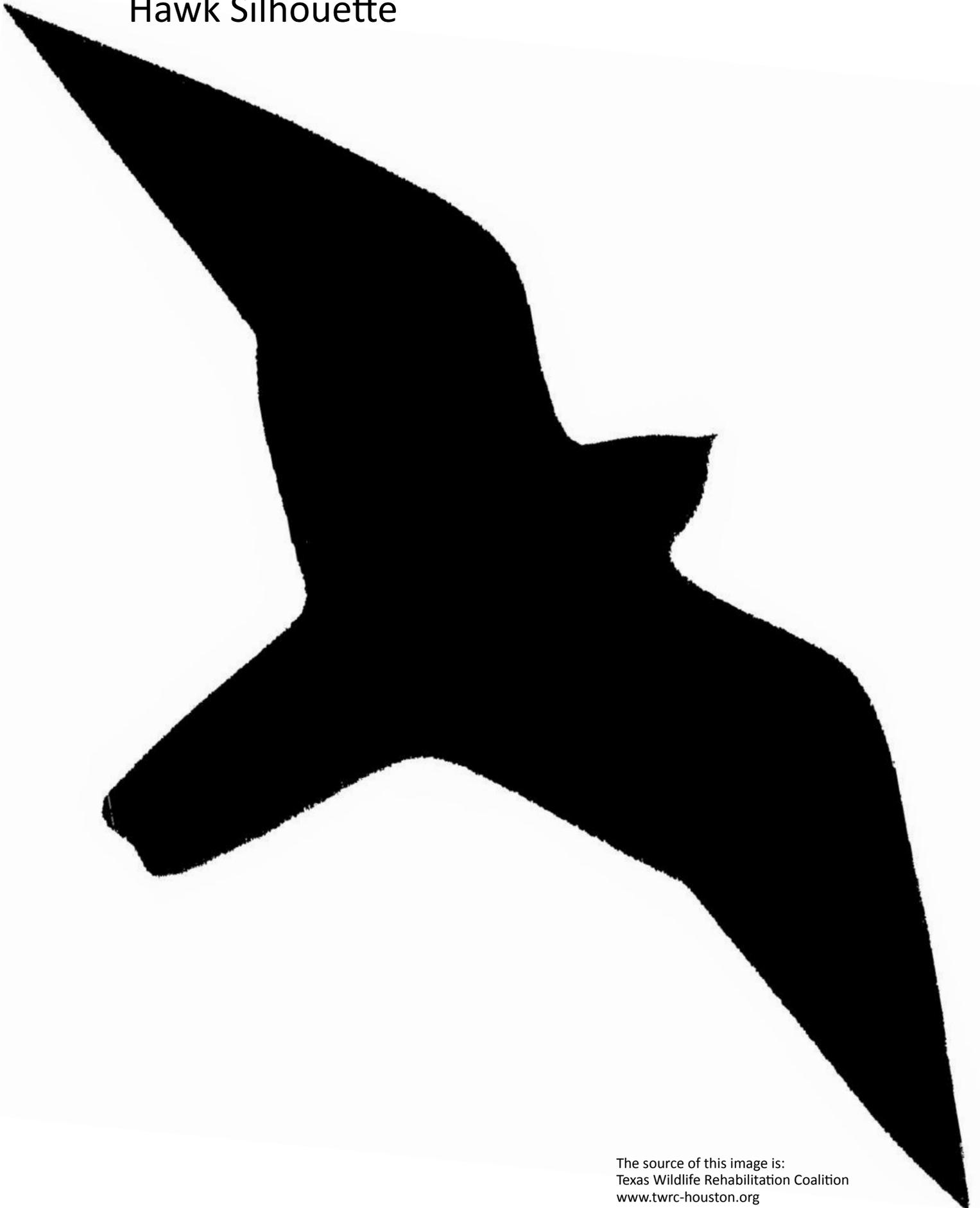
- American Bird Conservancy: Bird Conservation [www.abcbirds.org/conservationissues/threats](http://www.abcbirds.org/conservationissues/threats)
- National Audubon Society: Birds at Home [www.audubon.org/bird/at\\_home/KeepWildlifeSafe.html](http://www.audubon.org/bird/at_home/KeepWildlifeSafe.html)
- Bird Watcher's Digest ([www.birdwatcher'sdigest.com](http://www.birdwatcher'sdigest.com)) Top Ten Ways To Prevent Window Strikes [www.birdwatchersdigest.com/site/backyard\\_birds/top\\_ten/bill\\_top\\_10\\_strikes.aspx](http://www.birdwatchersdigest.com/site/backyard_birds/top_ten/bill_top_10_strikes.aspx)

### PERMISSIONS & CREDITS

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# Hawk Silhouette



## Example Window Strike Deterrents

