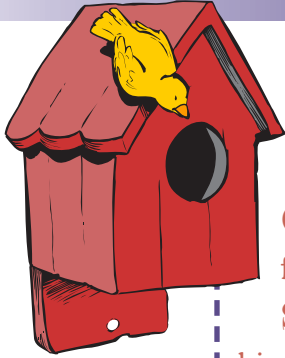


Bird Furniture



Life Skill: Wise use of resources

Project Skill: Learning the nesting and feeding requirements of local birds

Objective: Construct and erect birdhouses and/or feeders from used or scrap material

Success Indicator: Participants construct functional bird furniture using only recycled materials

Provisions Needed

- Pencil and paper
- Measuring tape

Nest Box:

- Hammer
- Galvanized nails or screws
- Recycled wood (bald cypress and redcedar are most resistant to decay)
- Hand saw
- Handheld brace and bit drill (for large holes)
- Hand drill (for small holes)
- Spade bits of different diameters

Bird Feeder:

- Scrap wood, plastic container, or milk carton
- String, wire, or chain for mounting feeder
- Utility knife



Trailhead

Almost everyone loves birds. These creatures come in a variety of shapes, sizes, and colors, and many have cheerful songs that announce the coming of spring. However, many birds are declining in number. The primary reason is the loss of habitat resulting from land clearing for houses, roads, and shopping malls. By building and placing birdhouses and stocked bird feeders in developed areas, you can improve nesting and feeding conditions in places where food and nesting sites have disappeared.



Trailblazing

Construct a nest box or bird feeder (see sketches for examples) using leftover materials from around your home. If you can't find any leftovers, contact a local store owner or wood dealer and ask for scrap material. When building a nest box, use the dimensions recommended for each type of bird (Table 1). Sketch your bird furniture on paper before you begin building. Here are some tips for building a nest box:

- Attach a wooden or metal guard around the entrance hole.
- Extend the back portion above and below the main box for attaching the structure.



construct a
nest box or
bird feeder

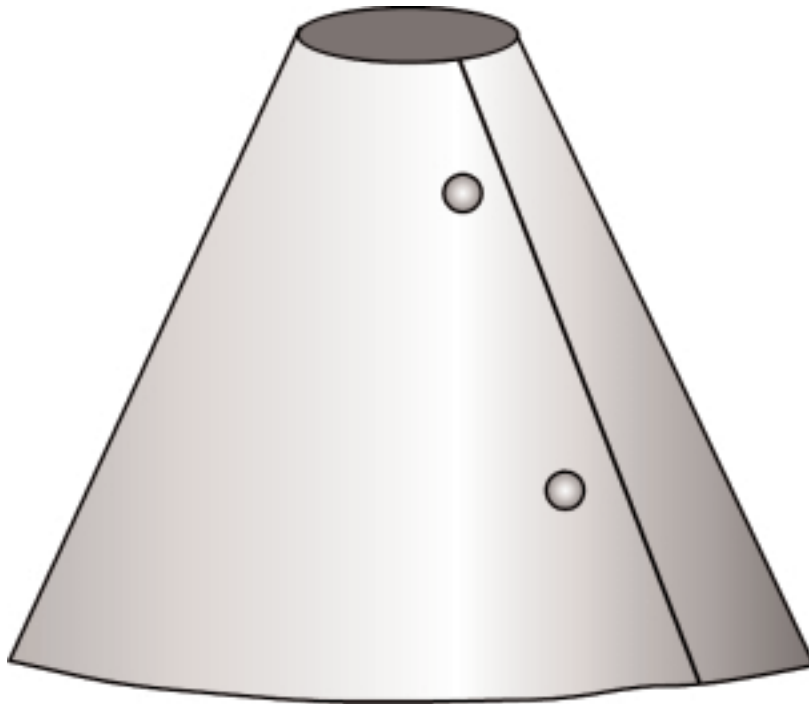


Bird Furniture

- Extend the top of the box over the entrance hole for shelter.
- To prevent splitting of the wood, drill holes by hand before inserting nails.
- Design a removable top or provide other access for cleaning the box each year.

Place your nest box in a location that seems right for your target bird. Place feeders within 10 feet of cover (brush piles or shrub thickets). If you can't erect bird furniture around your home, ask the director of a local park if you can place nest boxes or feeders there. Remember to place your bird furniture out of reach of cats, snakes, and other predators. Additionally, predator guards (Figure 1) can protect nesting structures. Once the furniture is in place, observe it from a distance, and keep records of your observations.

Figure 1. Predator guard



Suggested Reading

- Barnes, Thomas G. *Gardening for the Birds*. Lexington, Ky.: The University Press of Kentucky. 1999.
- Peterson, Roger Tory. *Eastern Birds (Peterson Field Guide Series)*. Boston: Houghton Mifflin. 1998.
- Harrison, Hal H. *Birds' Nests (Peterson Field Guide Series)*. Boston: Houghton Mifflin. 1975.

Internet Resources

- <http://www.wildlifehc.org/>
- <http://www.nwf.org/>
- <http://birds.cornell.edu/>
- <http://www.nabluebirdsociety.org/>
- <http://www.ces.ncsu.edu/nreos/forest/steward/www16.html>
- <http://www.ces.ncsu.edu/nreos/forest/steward/www4.html>

Bird Furniture

When building a nest box, use the dimensions recommended for each type of bird.

Table 1. Recommended Dimensions for Nesting Boxes*

Bird Species	Box Height	Floor Size (Interior)	Entrance Hole Height**	Diameter	Feet Above Ground
American Kestrel	14-16	8x8	10-12	3	10-20
Barn Owl	15-18	10x18	4	6	12-18
Barred Owl	22-28	13x13	14-18	6-8	10-30
Carolina Chickadee	8-10	4x4	6-8	1 1/8	4-15
Carolina Wren	6-8	4x4	4-6	1.5	5-10
Downy Woodpecker	8-10	4x4	6-8	1.25	5-15
Eastern Bluebird	8-12	5x5	6-10	1.5	4-6
Eastern Screech Owl	12-15	8x8	9-12	3	10-30
Great-Crested Flycatcher	8-12	6x6	6-10	1.5	5-15
Hairy Woodpecker	12-15	6x6	9-12	1.5	8-20
Pileated Woodpecker	16-24	8x8	12-20	3x4 (oval)	15-25
Red-Bellied Woodpecker	12-15	6x6	9-12	2.5	10-20
Red-Headed Woodpecker	12-15	6x6	9-12	2	10-20
Tufted Titmouse	10-12	4x4	6-10	1.25	5-15
White-Breasted Nuthatch	8-10	4x4	6-8	1.5	5-15
Wood Duck	20-24	10x10	12-16	3x4 (oval)	10-20

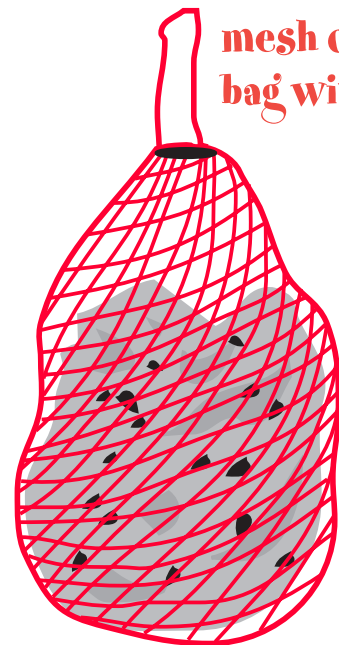
*All dimensions are in inches unless otherwise noted.
 **Height indicated is measured from floor of nesting box.



milk carton feeder



plastic jug feeder



mesh onion bag with suet

Bird Furniture



Field Guide

There are three primary types of **nesting birds**: **ground nesters** (turkeys, quail, etc.), **shrub** and **tree nesters** (robins, mockingbirds, etc.), and **cavity nesters** (woodpeckers, bluebirds, etc.).

Cavity nesters live in boxes or **tree cavities**. Woodpeckers, known as primary cavity nesters, excavate holes in dead trees or snags. Once woodpeckers abandon these cavities, other species, known as secondary cavity nesters, build nests in them. Examples of secondary cavity nesters are chickadees, titmice, bluebirds, and screech owls. People often cut down dead or dying trees, leaving **cavity nesters** nowhere to build their nests. Because natural cavities often are absent in cities and neighborhoods, nest boxes are important nesting sites for these birds.

Birds **introduced from other countries**, especially European starlings and house sparrows, often occupy natural cavities and nest boxes before native birds are able to build their nests. Native birds are more likely to use nest boxes with appropriately sized entrance holes and without perches.

Most of our **native birds** begin nesting in late March and early April. However, some birds, such as the great-crested flycatcher, migrate to Central and South America during the winter and don't return to the South to build nests until early May.

Different **types of birds** prefer different kinds of food. For example, sparrows like to eat seeds during most of the year, and orioles and thrushes prefer insects or fruit.

It is best to provide many different foods in your **bird habitat**, especially if you hope to attract a variety of birds. Examples include mealworms, orange slices, sunflower seeds, thistle seeds, millet seeds, and suet.

Metal or porcelain nest boxes and feeders may become too hot in the spring and summer sun.

Clean your feeders every two to four weeks, and clean out nest boxes before each nesting season.



Bird Furniture



The Extra Mile

Although birds that eat insects generally will not come to your seed feeders, they will eat suet cakes. Try making suet cakes using fat trimmings from meat mixed with seeds and/or fruit. Get trimmings from a local grocery store or substitute vegetable shortening. Melt the fat in a pan over low heat. Put the seed-fruit mix into a muffin pan so that each mold is about three-fourths full. Pour the melted suet over the seeds, stir, and let cool. Peanut butter can be added to the mix in amounts equal to the beef fat. Place the suet cakes in a leftover mesh bag, or come up with your own way to present the suet to the birds. What are some ways you can use resources wisely when making your suet mix?

Note: Suet may melt in high outdoor temperatures or in sunlight.



Field Notes

SHARE

- What was the most difficult part of building your bird furniture?
- What types of recycled materials seemed to work best for building bird furniture?
- Where did you go to find materials to recycle into bird furniture?
- Was it easier to build a nest box or a bird feeder? Why?

PROCESS

- How did you decide where to place your bird furniture?
- Are natural nesting and feeding sites lacking in your yard or neighborhood? Why?
- What types of birds do you expect to use your nest boxes and feeders? Why?
- How might you persuade people to leave dead trees or parts of them for cavity nesters? How could they do this safely?
- How does recycling help protect birds and their habitats?
- What can you learn from birds when it comes to wise use of resources?

GENERALIZE

- How have you used resources wisely in other ways?

APPLY

- What things could you do to help protect birds and their habitats?
- How could you wisely use resources in other ways that enhance wildlife habitats or human quality of life?
- What businesses do you know of that recycle their surplus products? Which ones also use recycled materials?