



Activity 4 Building Bird Nests



Created By Point Reyes Bird Observatory Education Program

Building Bird Nests Activity 4

Objective:

To teach students about songbird nests, the different types, placement and uses.

Materials:

- ✓ Nesting material
(grasses, moss, lichen, small twigs, spider webs, hair)
- ✓ glue and tape
- ✓ pieces of cardboard
(to use as a base for the nests)
- ✓ old magazines and books
with pictures of bird nests.
- ✓ bird nest worksheets (#1-3)

Duration

3 days

Day 1– Prepare for nest building

Day 2– Building a collage

Day 3– Building a nest

Note: This activity is best done in the spring!

Background

Different species of birds build different types of nests in a variety of places from directly on the ground to high up in trees. Some birds build floating platform nests in marshy, wet areas. Most songbirds build nests within 5 m of the ground. Birds within the same species build similar types of nests, but the nest material used depends on the surrounding habitat. Birds start building nests in early spring, typically in March, but some birds, such as the Anna's Hummingbird will start building in late January or early February. Cavity, cup, pendulum, platform, and spherical are five major types of nests that birds build. The provided worksheets describe the five types of nests and give examples of birds associated with each type.

Procedure

Preparing for nest building:

1. Using worksheets (#1-3) as a resource, introduce students to bird nests. Generate a discussion by asking them questions about bird nests such as, Where do birds build nests?, What time of year do birds usually build their nests?, and What kind of materials do you think birds would use to build

Activity 4 (cont.)

Preparing for Nest Building (cont.)

2. Assign the class to bring in old magazines or calendars with pictures of bird nests that they can cut out.

Building a collage:

1. Organize the pictures of nests by types using the worksheets provided.
2. In groups by nest type, have the students build a collage of nests by nest type, e.g. cup, platform, etc.
3. Once the collage is built, talk about the types of nests in the pictures and get the students thinking about what types of materials are used in the nests (i.e., hair and moss for lining the nest). Point out the structure of the nests, specifically the materials used for lining vs. the exterior of the nest.
3. Have students decide which type of nest to build. Then have them bring in the appropriate nesting material from around their homes or from around your school.

Building the bird nest:

1. Start with the cardboard base.
2. Construct the nest using glue, tape, paper mache, to form the body of the nest with coarse material (sticks, heavy grasses, straw)
3. Line the nest with cotton, fine grass, hair etc.
4. After they have built their nests, have students display them at their desks. On a piece of paper next to the nest, they should label the type of nest it is, what bird uses it, where it is usually built (understory, mid-story, or canopy), and what it is made of. Then allow students to walk around everyone's desk and look at each nest. This will give them a chance to show off their nests, while learning about the other types of nests their classmates built.

Activity 4 (cont.)

Have students comment on the activity as a group. Discuss what they liked about the activity and what they learned from it. Then suggest that students keep their eyes out for bird nests or evidence of them. Go over what the students should do if they find a nest, using the provided information on the worksheet.

If the students are ambitious and excited about this project, they could take it a step further. Displaying their nests somewhere in the school, such as the library, would be a good way to teach the rest of the school about bird nests. Students could use the same description of their nest that they used in the classroom. Depending on the amount of space, a few nests could be chosen by students to be displayed, or each student's nest in the class could be displayed.

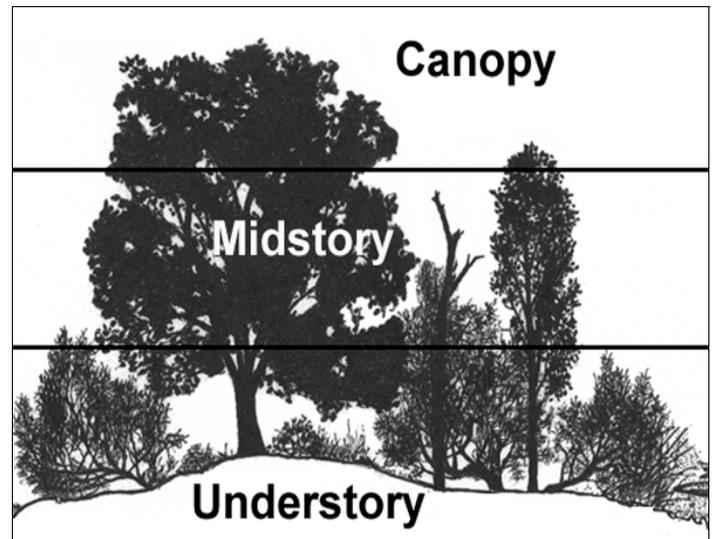
Variations:

Have students draw or find pictures of the examples of birds that build each nest type. These pictures could be used to make a collage or to display next to the students' nests. Another idea is to have students pick a bird species that builds the type of nest they chose to build in class and research the bird's natural history and behavior. This information could be presented along with the nest to the class, or in a written report.

Worksheet #1

Building Bird Nests

Where Do Birds Nest?



Birds nest from directly on the ground to the tops of trees in one of the three main vegetation layers: understory (shrubby, weedy undergrowth beneath trees), midstory (includes shorter trees and taller shrubs), and canopy (includes the tops of trees).

Types of Nests

Birds build nests in a variety of places from the tops of trees to directly on the ground. Some birds even build floating platform nests in marshy areas. Most songbirds build nests within 5 m of the ground in the understory. Birds start building nests in early spring, typically in March, but some birds, such as the Anna's Hummingbird will start building in late January or early February. The breeding season ends in late July for most songbirds.

Different species of birds build different types of nests. Birds within the same species tend to build similar types of nests, but the material they are made out of may vary depending on the surrounding habitat. The purpose of a nest is for birds to have a protected, warm place to incubate their eggs and then to raise their young once they hatch. Birds are normally very secretive when building their nests in order to keep their location unknown to possible predators in the area. Although, if you watch closely you may be able to see birds carrying nest material in their beaks to build their nests. Cavity, cup, pendulum, platform, and spherical are five major types of nests that birds build.

Worksheet #2 Nest Types



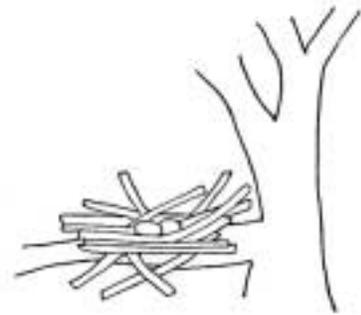
CAVITY



CUP



PENDULUM



PLATFORM



SPHERICAL

Worksheet #3

Nest Type Descriptions

CAVITY

A cavity nest is a hollowed-out opening in the trunk of a tree, either found naturally in dead trees or purposely made by birds such as woodpeckers. The cavity is smallest at the beginning of the opening and is largest inside the trunk where the eggs are laid. Other examples of cavity nesting birds include chickadees, nuthatches, and bluebirds.



CUP

A cup nest is cup-shaped, and can be made with a variety of materials such as grass, moss, lichen, or spider web. The material on the outside of the nest is more coarse and thick. The material for the inside of the nest is usually more soft and fine than the outside to cushion the eggs and keep them warm. Birds that build this type of nest include many songbirds such as sparrows, finches, thrushes, and even hummingbirds.



PENDULUM

A pendulum nest is typically built from mosses, lichens and small twigs into a pendulum or hanging sac-like shape, usually suspended from a small tree branch. Bushtits, kinglets, and orioles are some of the species that build this type of nest.



PLATFORM:

A platform nest is mostly flat and supported by tree limbs. Birds in the Corvid family such as Stellar's and Scrub Jays, Crows and Ravens, and also birds in the raptor group such as hawks and eagles build platform nests. Platform nests built by birds in the raptor group can be extremely large and usually are found at the tops of large dead trees. This type of nest is also commonly found on the ground in marshy areas and used by waterfowl.



SPHERICAL:

A spherical nest is globe or ball-shaped, usually made of grasses, with a single opening or hole on one side. Marsh Wrens will build many of these nests at one time, but only use one as their "active" nest. The other non-active nests, or "dummy" nests are used to defer or confuse predators from finding the nest with eggs or young. Other examples of spherical nest builders include Sedge and Cactus Wrens.



Key Concepts For Bird Conservation

- **Productivity (the number of baby birds produced each year for a species) is directly linked to whether or not the population increases or decreases.** Productivity may be the single most important factor influencing population health. Productivity is influenced by a number of factors such as predation, parasitism, nest site availability, and food availability.
- **Different species nest in different areas.** To help protect birds while they are nesting it is important to protect all areas. That means leaving "weedy" areas for ground nesters; shrubs and plants for open cup nesters (birds that nest off the ground in tall weeds and plants); dead trees and snags for cavity nesters (birds that nest in holes in trees); and trees for canopy nesters (birds that build their nests in the tops of trees).
- **Birds nest during the spring and early summer of each year and raise their young in a rather short period: peak breeding season covers about three months; most eggs are incubated approximately 3-4 weeks; young develop from hatchling to fledgling in as little as 10 days.** Nestling birds are particularly sensitive to changes in the environment and thus are sensitive indicators of ecosystem health. Mowing or clearing vegetation during breeding season may remove potential nest sites, directly destroy nests or expose nests to predators. Smart predators, such as cats, crows and jays, can decimate breeding populations by learning to find and prey on nests.
- **The understory (weedy shrubby growth underneath trees) is crucial to birds when nesting.** A healthy and diverse understory with lots of ground cover offers many well-concealed nest sites. Not only does the understory provide a site for ground and open cup nesters to build their nests, but it is also the area where many birds find food for their young. Manicured parks and mowed lawns provide poor nesting conditions for all but a few bird species.
- **Plants and vegetation native to the area provide birds with the natural habitats with which they have evolved.** Introduced species may not provide the same nutrition. They are also more invasive and can quickly take over an area as the dominant plant type reducing the diversity of vegetation that is important to bird populations. Less diverse vegetation can lower the productivity and thus viability of a bird population.

What Should You Do If You Find a Bird Nest?

- **Do not touch the nest**, even if it appears to be abandoned. It usually takes a few days for birds to build their nests and for the female to lay her eggs in it once it is completed. Even if the nest appears empty or abandoned, it may still be active and touching or disturbing the nest may cause the parents to abandon it.
- **Stay back from the discovered nest.** Any attention that you may draw to the nest could attract or alert predators in the area. If the nest is in the process of being built or is active, the female may abandon it if she sees that you have found the nest.
- **If you find a baby bird on the ground, do not try to put it back into its nest.** Some young birds that have recently “fledged”, or left the nest, will not be able to fly very well yet, and this could be why the bird is on the ground. The parents continue to feed young birds for one to two weeks after they leave the nest. A bird found on the ground is not necessarily in danger of dying and is probably still being taken care of by its parents. Contact Wild Care at (415) 456-7283 or other wildlife rehabilitation centers if you do find a baby bird on the ground and have reason to believe that it needs special attention.
- **Observing a nest from a concealed spot** is the safest way to ensure that your presence will not disturb the parents, attract predators, or cause the parents to abandon the nest.
- **Observe for signs of a nest in a suspected nest site.** A bird carrying nest material in its beak is a good indication that it is in the process of building a nest. If you see a bird with some kind of food in its beak (i.e., insects and grubs), they probably already have nestlings and are bringing food to them in the nest. Just being observant of a bird’s behavior can give you information on the status of its nest.