



Written by Rebecca Stark, Intern, Sacramento State University

Bird species have adapted different nesting strategies to protect and successfully hatch their young. Table of ContentsPage 2: Article: From Nesting to
HatchlingPage 3: Activity: Match It to
Hatch It!Page 4: Activity: Bagel Bird
Feeder and Nest Materials

CWA Programs - Get Your School Involved!

Federal Junior Duck Stamp (JDS) Program

This program teaches K-12 graders the basics of wetland and waterfowl biology and wildlife art skills. Students are provided with materials to complete a waterfowl art piece and can submit it to the Federal JDS Art Contest. Each art submission generates a dollar toward conservation and education in California and competes in the art competition, where students may win outdoor prizes and awards supporting their education. The Best of Show in the state goes on to compete in the National Junior Duck Stamp Art Contest. This

program is offered year round. March 15 is the art contest deadline each year.

Wood Duck Program: Wood Duck Wonders

In this 1.5 hour classroom program 3rd-8th graders role play as field biologists: building their background knowledge of wood ducks, checking nest boxes, banding stuffed animal wood ducks, recording data and having fun. This program is offered year round. Last school year, we visited 67 classrooms and reached over 1,896 students. Walking With Wood Ducks

After participating in the Wood Duck Wonders classroom program, students can take a 4 hour field trip outdoors with California Waterfowl's field biologists to do actual nest checks, handle and band live wood ducks, build nest boxes, walk the wetlands, and more. This program is offered March through June and can host up to 2 classes.



To inquire further, contact sbritt@calwaterfowl.org



From Nesting to Hatchling

Nests provide a safe place for eggs and young birds to develop. Bird nests are extremely diverse, although each species typically has a characteristic nest style. Birds

construct nests from natural materials, such as grass, leaves, mud, lichen and fur or from man-made materials like paper, plastic and yarn. Nests can be found almost anywhere, including on the ground, in trees, in burrows, on the sides of cliffs and even in and on man-made structures.

The total number of eggs that a female can lay varies widely depending on the species. For example, many tropical birds lay only 2 or 3 eggs, while waterfowl, such as wood ducks, can lay up to 15 eggs. The number of eggs can also vary



widely among individuals of the same species depending on food and calcium availability, latitude, age of the female, weather and time of year.

Birds incubate or sit on their eggs to keep them at the proper temperature to promote normal growth. Incubation time varies depending on the species, but typically the larger the bird, the longer the incubation period. Some birds, like songbirds and most seabirds are born blind, featherless and helpless. They remain in the nest where the parents can feed and protect them while they continue to develop or grow. By the end of the first week, their eyes are usually open and their feathers are beginning to emerge. During this time, nestlings can experience remarkable growth by doubling their body weight several times. Other bird species, such as ducks and many shorebirds, are



born fully feathered, mobile and with eyes open. Their incubation periods are longer allowing for more development in the egg. These birds spend hardly any time in the nest and are often seen wandering in search of food alongside their parents only hours after hatching.

After 2 or 3 weeks, most

songbirds are usually ready to leave the nest. Other birds, such as raptors- hawks, eagles, owls- may stay in the nest for as long as 8 to 10 weeks. After leaving the nest young birds typically remain close to their parents for a short period. During this time, young birds must learn to survive on their own and are very vulnerable to predators and starvation. It's not easy being a hatchling!

Match it to Hatch it!

Clark's Grebes

 \mathbb{C}

Write the correct letter on the line provided.

Cup - a cup-shaped nest made with a variety of materials such as grass, moss, mud, lichen, or spider webs

Scrape - a shallow indent in the ground or leaf litter

Burrow - a nest built by burrowing into the ground

Cavity - a hollowed-out opening in the trunk of a tree

Platform - a relatively flat nest that may be located on the ground, in a tree or on the tops of rooted vegetation or debris in shallow water

Pendant - a swinging, hanging nest often woven from grasses



Bushtit

Nuttall's Woodpecker



Burrowing Owl



Rufous Hummingbird



Killdeer

Answers on Back

Bagel Bird Feeder

Materials

- Stale or day old Bagel
- Bird seed
- Peanut butter (can be substituted with shortening)
- Plate
- String
- Plastic knife and scissors

Directions

- 1. Cut bagel in half and leave out over night if it is not already stale.
- 2. Spread peanut butter or shortening on the bagel halves.
- 3. Fill a plate with the bird seed and then press the bagel into the seeds. Make sure it is completely covered.
- 4. Tie a string through the bagel hole, and hang it up in a tree.





Bird Nest Materials

Use a suet feeder, other basket or cage to leave out natural bird nest materials for those making nests. Some things to leave out include:

- Animal fur (flea treatment free)
- Dry grasses (pesticide free)
- Small sticks and twigs
- Pine needles

- Plant fibers
- Natural fiber cloth (strips 3" to 6" long and no more than 1" wide)
- Natural yarn (6" max.)

Avoid using materials such as dryer lint, nylon, acrylic, and other man-made materials. We want to leave nature natural!

Answers for pg. 3: 1. D, 2. F, 3. B, 4. E, 5. A, 6. C

For more information on our education programs or to get involved, contact Sabreena Britt, Education Coordinator at (916) 648-1406 Ext. 102 or sbritt@calwaterfowl.org

For more information and our calendar of events OR to DONATE to our education programs and newsletter, visit https://www.calwaterfowl.org/Donate-online