



OREGON ZOO

BIRDS OF PREY

ACTIVITY BOOK

**Your beak-to-talons guide
for everything you want to know
about hawks, eagles, owls, and more!**

Supported by
a grant from the



WHAT TO LOOK FOR

AMERICAN KESTREL

Coloring: black and white face pattern, blue-gray wings on male, brownish-red wings on female, black eye stripe or mustache, reddish back and tail, gray crown

Size: small, 9 to 12" long

Wing Span: 20 to 24"

Habitat: fields, pastures, cities, forest clearings, along highways

Feeding: large insects (grasshoppers, crickets, dragonflies), mice, bats, small birds, lizards, frogs

Nest: natural holes in cliffs or trees

Field Marks: narrow, pointed wings; long tail; hovers in flight

RED-TAILED HAWK

Coloring: light brown to dark brown, large variation in color, light-colored chest and streaked belly, red tail

Size: large, 18 to 25" long

Wing Span: 4 to 4-1/2 feet

Habitat: forests, open country, mountains, plains, along roads

Feeding: whatever is available — small mammals, birds and reptiles

Nest: 15 to 120' high in the trees

Field Marks: chunky body; broad wings; wide red tail; loud screech

GOLDEN EAGLE

Coloring: dark brown body, patch of gold on neck and back of head, blue/gray beak, yellow feet

Size: very large, 30" to 40" long

Wing Span: 6 to 8 feet

Habitat: open areas, near foothills and mountains

Feeding: squirrels, prairie dogs, jackrabbits, mice, small birds, foxes, deer, antelope

Nest: 10 to 100' high, sometimes nests on tall power poles

Field Marks: large wing span; large soaring bird

BALD EAGLE

Coloring: white head and tail, dark brown body, yellow beak

Size: very large, 30 to 40" long

Wing Span: 6 to 8 feet

Habitat: along coasts, lakes and large rivers

Feeding: fish, ducks, waterfowl, small mammals (squirrels, rabbits), carrion

Nest: ledge of a cliff or fork in a tall tree

Field Marks: large wingspan; white head and tail

NORTHERN HARRIER

Coloring: male is gray on top, white below with black wing tips; female is brown on top, streaked brown below

Size: large, 16 to 24" long

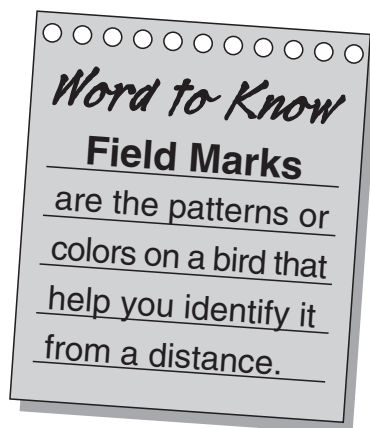
Wing Span: up to 4 feet

Habitat: open fields, meadows, low-lying wetlands

Feeding: mice, rats, birds, snakes, frogs

Nest: ground, hollow protected by vegetation

Field Marks: white patch on rump; long, slender wings; long tail; hovers in flight



GREAT HORNED OWL

Coloring: dark brown, white throat patch, large yellow eyes

Size: large, 18 to 25" long

Wing Span: 3-1/2 to 5 feet

Habitat: woods, parks, suburbs

Feeding: small birds, small mammals (mice, squirrels, rabbits), larger birds (hawks, geese, turkeys), insects, skunks, woodchucks, porcupines, frogs, other

owls, hawks

Nest: old hawk nests, hollow of a tree, snags

Field Marks: big owl with feather tufts that look like horns; usually seen from dusk to dawn

WHAT TO LOOK FOR

BARN OWL

Coloring: white heart-shaped face, dark eyes, pale chest, golden or rust-colored feathers on back

Size: small, 18" long

Wing Span: 3 to 3-1/2 feet

Habitat: woodlands, marshes, suburbs, prairies, farm land

Feeding: rodent (mice, rats and voles), rabbits, shrews, moles

Nest: barns and other old buildings
tree hollows, snags

Field Marks: white underparts; very nocturnal

TURKEY VULTURE

Coloring: red head with no feathers, black wings and body, white beak

Size: large, 25 to 32" long

Wing Span: 5 feet

Habitat: woods, open country, deserts, foothills

Feeding: carrion — which helps keep the environment clean and reduce the spread of disease

Nest: bare ground, hollow stump, cliff ledge, old buildings (turkey vultures don't build nests)

Field Marks: long tail; wings form a shallow "V" when soaring

PEREGRINE FALCON

Coloring: dark crown, white face with black sideburn, brown spots and bars on chest, eye stripe

Size: large, 15 to 21" long

Wing Span: 3 to 4 feet

Habitat: open fields, coasts, countryside, near cliffs, adapting to cities

Feeding: birds (pigeons, starlings, ducks, shorebirds), insects

Nest: shallow hole on a cliff ledge (called a scrape) 50 to 200' high

Field Marks: long, pointed wings; long, narrow tail

COOPER'S HAWK

Coloring: gray back with rust-colored bars on chest, dark crown

Size: medium, 14 to 20" long

Wing Span: 2-1/2 feet

Habitat: forests, woods and farmland

Feeding: birds (starlings, jays, robins, quail), small mammals (chipmunks, squirrels), snakes, lizards, frogs

Nest: 10 to 70' high in trees

Field Marks: short, rounded wings; long, slightly rounded tail

SHARP-SHINNED HAWK

Coloring: blue-gray above, light below with reddish-brown barring, heavy streaking on breast and belly, dark crown

Size: small, 10 to 14" long

Wing Span: 2 feet

Habitat: remote woods, thickets

Feeding: small birds (sparrows, robins, doves), rodents, bats, lizards, frogs, grasshoppers, moths

Nest: 10 to 90' high

Field Marks: short, rounded wings; long, squared-off tail with white tipped gray bars; rapid wing beat when flying

OSPREY

Coloring: white head and chest, dark wings, yellow eyes, wide black eye stripe

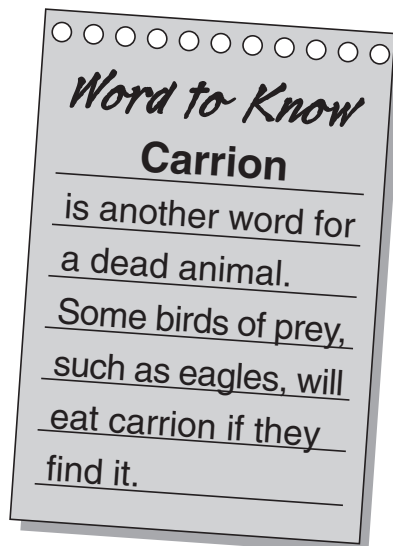
Size: large, 24" long

Wing Span: 4 to 5 feet

Habitat: rivers, lakes, sea coast, marshes
Feeding: fish — they are the only bird of prey that hunt by diving into the water

Nest: tall trees, cliffs, man-made structures

Field Marks: black patch on cheek; long "crooked" wings while soaring; white below with black patches on wings



MASTERS OF THE SKY

**They swoop!
They soar!
They dive,
dart, glide
and pounce!**

No other birds have been more admired — and more feared — than these swift, aerial hunters. They're birds of prey, majestic hunters of the bird world.

WHAT IS A BIRD OF PREY?

What separates a bird of prey from all of the other species of birds? Simply put, birds of prey have hooked beaks and strong feet with talons. They use their feet and talons to capture and kill their prey.

WHO EATS WHO?

Birds of prey are known for being fierce hunters, able to catch all sorts of prey in all sorts of environments. Squirrels in the trees. Mice on the ground. Fish from a running stream. Even other birds in flight are fair game.

Birds of prey have few natural enemies. In fact, things like loss of habitat, pollution and poaching are the biggest threat to today's birds of prey.

THE RAP ON RAPTORS

Say the word raptor and you probably think of those nasty, kid-chasing dinosaurs from Jurassic Park.

In the dinosaur world, raptor is short for velociraptor. In the bird world, however, raptor is another word for birds of prey. Hawks are raptors. Eagles, too.

But there's more to the dinosaur/bird connection than just the name raptor. Many scientists think that birds may be relatives of dinosaurs from millions of years ago.

**Raptor comes
from the Latin
word meaning
"to seize."**

FUN FACT:

How good is a red-tailed hawk's eyesight?

If you were on the top of an 18-story building looking down at the street, you might be able to barely make out the outline of a Volkswagen Beetle parked below. The hawk, looking down from that same distance, could see a real beetle — as in a 2" insect — crawling on the sidewalk.

BIRD WATCHING 101

Here in the Northwest, you can hardly walk outside without seeing a bird or two. In the trees. Near the water. Soaring over open spaces, coastlines and foothills.

It's the perfect place to do a little bird watching. So pack your bag, lace up your hiking shoes and keep your eyes open. You never know which birds you might see.

FUN FACT:

An eagle can see a rabbit on the ground from two miles overhead.

In the know for where to go

Unlike the robins and jays in your backyard, birds of prey can be a little harder to find — unless you know where to look.

For ospreys and bald eagles

Look along lakes, streams and rivers. Since these birds hunt fish, they are naturally drawn to the water.

For harriers

Look in low-lying wetlands, marshes and meadows. Harriers hover high overhead, looking straight down at their prey — then they swoop in for the kill.

For red-tailed hawks and kestrels

Look in open grassy areas, like forest clearings. They're also found on fenceposts, signs and overhead wires along highways. These birds hunt rodents and insects and can often be found in the country.

For barn owls

Look in out-of-the-way places in town, like parks, cemeteries, church steeples, open fields, abandoned buildings and, of course, barns! Barn owls have no problem living near people.

Word to Know Naturalist

is someone who likes to explore nature and record what they see. Lewis and Clark were naturalists. John James Audubon was, too. Are you a naturalist?

TOOLS OF THE TRADE

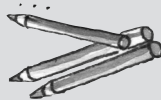
Bird watching is easier when you have the right gear. The most important thing to take with you is

a good pair of



You'll also want to pack a small

pens for writing and a small set of colored



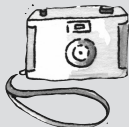
for drawing sketches. It's also helpful

to have a bird watching



to help you identify the different birds you see. And an easy-to-

use



can be a great way to record and document your journey. Load it all into a

lightweight backpack, along with a snack and a

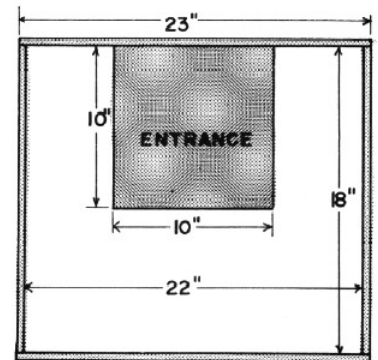
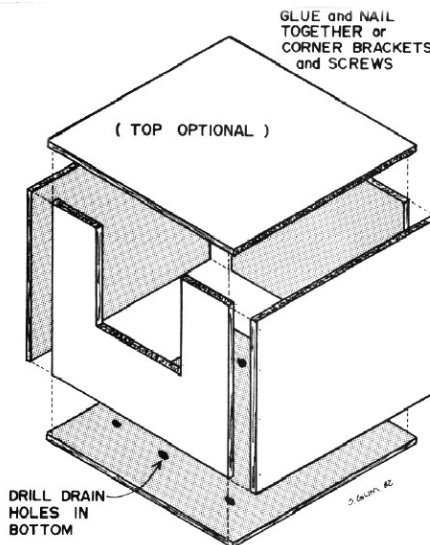
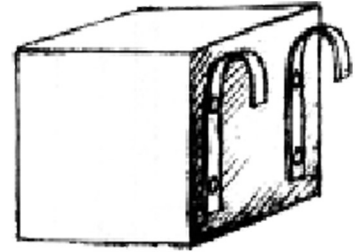
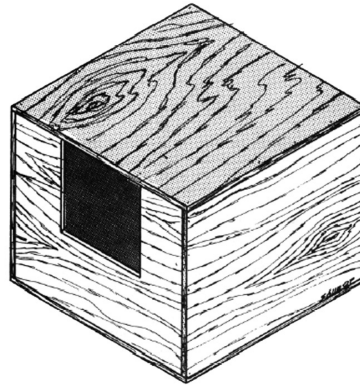


and you're ready to go.

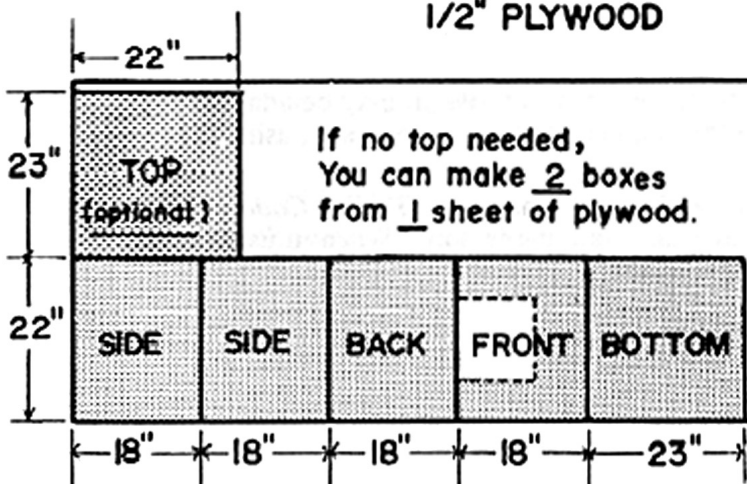
BARN OWL NEST BOX

Nest box drawings by Steve Gum
Missouri Department of Conservation

- 1.** Buy a 4' x 8' sheet of 1/2" ply wood
- 2.** Follow the drawing and mark your measurements.
- 3.** Have a grown-up cut the wood.
- 4.** Drill nine holes in the bottom piece as a drain.
- 5.** Wood glue and nail the box together, or use corner brackets and screws.
- 6.** Put an inch or two of wood shavings in the bottom. Barn owls don't add their own nest materials, so this is very important.
- 7.** If you're placing the box somewhere protected — like under a barn roof — you don't need a top. If you're placing it in a tree or somewhere more exposed, attach the top.
- 8.** Mount and enjoy.



ALL PARTS FROM A 4' x 8' SHEET 1/2" PLYWOOD



TIPS

for nesting box success

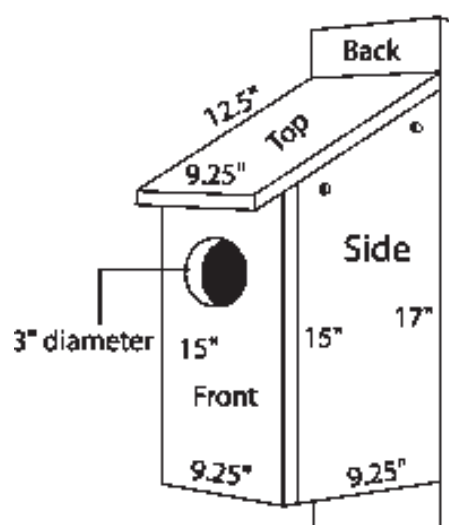
- Look for a spot that's away from human activity.
- Make sure you're not using pesticides, fertilizers or any other poisons in the area near the box.
- Put the box someplace it won't be bothered by cats, squirrels, raccoons or other animals.
- Be patient. You may have to try different locations before you find one that's right.

MAKE A NESTING BOX

Next box drawings by Kestrels Across America

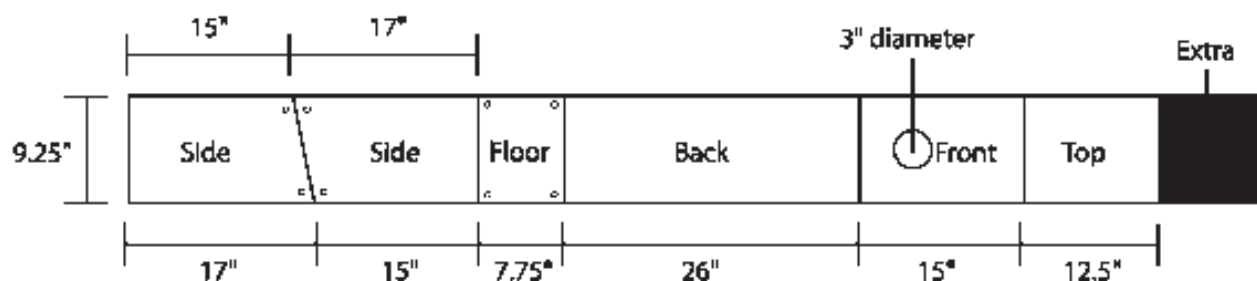
ONCE upon a time, birds could build their nests wherever they wanted. Then came people — along with houses, grocery stores and schools. The more buildings there are, the less space there is for birds...and their nests.

That's where you come in. By building a nest box, you can help give a bird of prey a place to live. Here are some easy-to-follow instructions for two different kinds of nesting boxes.



KESTREL NEST BOX

- 1.** Buy a single 8' long 1" x 10" pine or cedar board.
- 2.** Follow the drawing and mark your measurements.
- 3.** Have a grown-up cut the wood.
- 4.** Drill three 1/4" holes near the top of each side and four 1/4" holes in the bottom for ventilation.
- 5.** Cut a 3" entry hole in the front, 10" up from the bottom. (Use a food can to trace your circle.)
- 6.** Pre-drill pilot holes, then glue and screw the pieces together. First, attach the front flush to the side. Then center and attach the back. Next, insert the floor piece (it should fit inside). Finally, use small hinges to attach the roof to the back.
- 7.** Put an inch or two of wood chips in the bottom (no cedar sawdust).
- 8.** Attach one small screw eye on the roof and another a few inches below on the side. Then wire the roof shut to keep out predators.
- 9.** Mount and enjoy.
- 10.** Clean out the nesting box once a year, in the late fall. Simply open the box, clean out any debris inside and add a new layer of bark chips.



BECOME A BIRD DETECTIVE

Whether you're in a forest or field, birds of prey leave clues that let you know they've been here ... and may be nearby. Use the pictures to unscramble the words below. Then look for these "birds in the area" signs next time you go bird watching.



helps birds fly, very light

T H A R F E E S

bird bed made
of sticks or grass

S T E N



stuff that splats on your windshield

D R I B P O P I R D G S N

screeches, screams
and hoots

B R I D U N D S O S



walnut-sized lump of
bones, fur and teeth

L O W T E P E L L

RULES OF THE ROOST

Sure, you know where to look. But being a true bird watcher also means knowing how to look. It's important to be respectful of the world around you.

- 1. Tread lightly.** Do your best to be quiet and move carefully. Good observers have no effect on what they watch. Always leave the environment exactly as you found it.
- 2. Look, don't touch.** Bird watching means just that. If you see feathers, eggs or nests, record them in your journal but don't pick them up. And let nesting birds nest in peace.
- 3. Mother knows best.** Leave baby birds alone, even if you don't see parents. Even if they're not in the nest, they may be learning to fly. Mom is more than likely very close by and won't be happy to see you.

Whenever you're going bird watching, make sure to tell your parents first. Steer clear of private property. And buddy up for safety.

BIRD WATCHING HOT SPOTS

Basket Slough National Wildlife Refuge
(near Rickreal, OR)

Cape Mears National Wildlife Refuge
(near Tillamook, OR)

Champoeg State Park
(near Newberg, OR)

Fall Creek State Recreation Area
(near Eugene, OR)

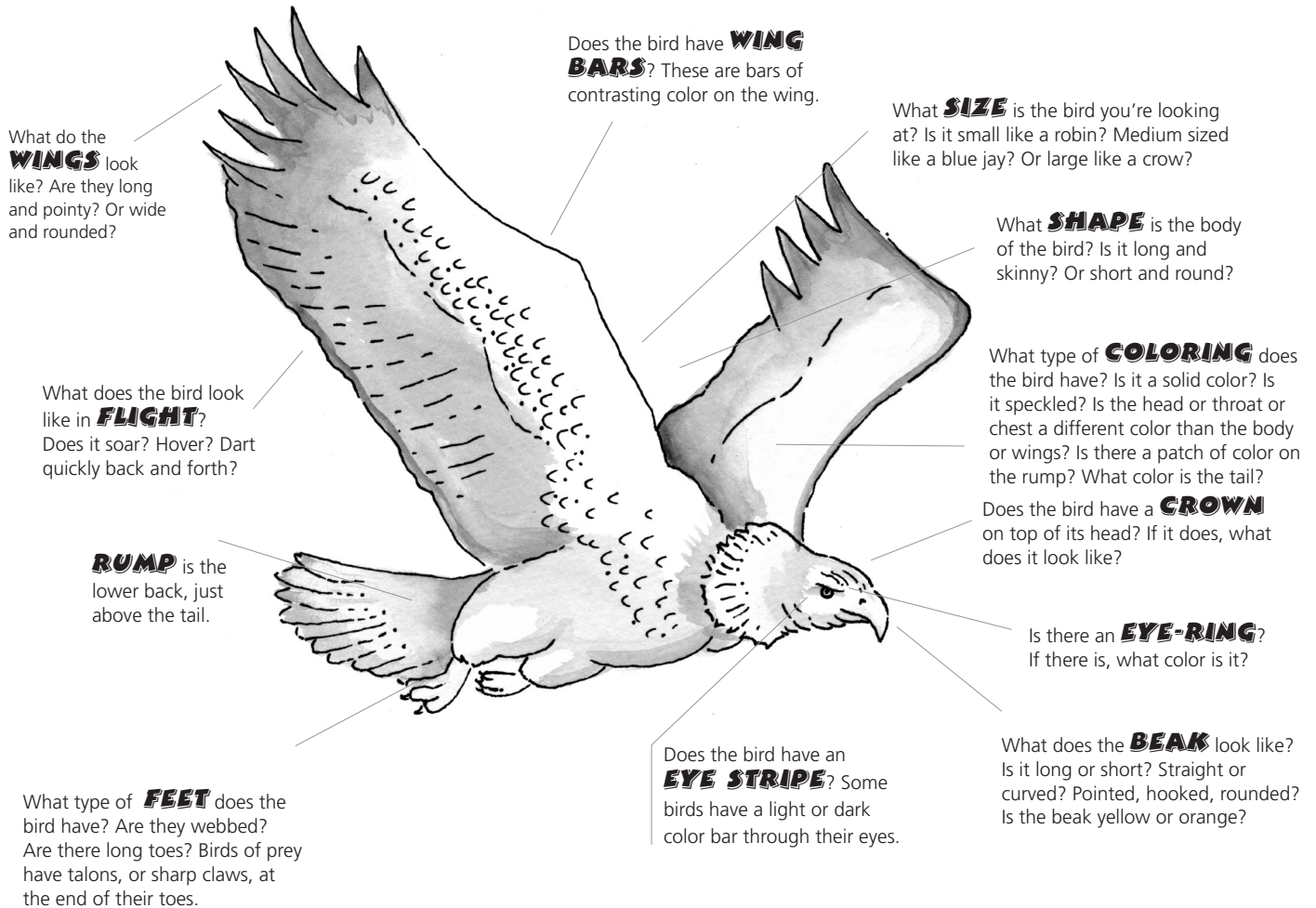
Maud Williamson State Recreation Site
(near Salem, OR)

Ridgefield National Wildlife Refuge
(Ridgefield, WA)

Yaquina Head/Yaquina Bay
(near Newport, OR)

EYE-RINGS AND WING BARS AND CROWNS, OH MY!

As you can probably tell by now, no two types of birds are exactly the same. Some are round. Some are long. Some are colorful. Some are plain. But whether the bird of prey you're watching is soaring in the distance or resting on a nearby pole, it's easier to figure out what they are if you know what you're looking at.



SACRED SYMBOLS

Birds of prey are very important to Native American cultures. Many tribes believe that **eagles** are messengers from heaven, carrying prayers directly to the great creator. Eagle feathers — which by law, only Native Americans are allowed to have — are often used in traditional ceremonies. **Hawks** are seen as symbols of spirit, wisdom and power. And while **owls** are believed to be wise, certain tribes also believe they're the souls of the dead.

WHICH BIRD GOES WHERE?

Birds of a feather may flock together, but birds of prey hang out in very specific places. Using the information from this guide, see if you can

draw a line from each bird to the habitat they might live in. Then color the picture and create a natural masterpiece.

