

My Notes:

Wings of Wonder Field Journal

Team Flight

To be used in preparation for and during an
ecology study trip to a
Wildlife Habitat



This Journal Belongs To:

(Scientist's Name)

What do we know about Birds?

All birds share common characteristics whether they are large, small, seed eaters or meat eaters. They all have feathers, wings, beaks, a four-chambered heart and some hollow bones. They are warm-blooded animals that reproduce by laying eggs.

Birds are in a special class of vertebrates called Aves (latin for bird) and are grouped into orders, families, and genera according to similarities in their bills, feet types, wing forms and other characteristics, some of which are internal.

Birds come in many different shapes, sizes and colors. Each species is adapted to live, eat and reproduce in specific ecosystems. From a heron in wetlands to a sparrow in the field, each bird species finds its favorite food, water, shelter, and space in certain habitats. Most birds are found in only one or two special habitats. In your own neighborhood, you can experience this diversity firsthand!

There are 9,000 species of birds worldwide. About 650 species occur in North America, north of Mexico. Find out how many occur in your state!

Habitats as Outdoor Classrooms: Local Learning through Inquiry

Designed for third-fifth grade students, this Team Flight module encourages exploration of local ecosystems and the wildlife that inhabit them. Originally designed for the Wings of Wonder project in the Three Rivers Habitat Partnership, a regional project of the Wildlife Habitat Council (WHC), for use on the Bayer Corporation's Pittsburgh site. With over 48 bluebird nest boxes, butterfly gardens, wildflower meadows, and various habitats, the Bayer Pittsburgh Site was certified by the Wildlife Habitat Council (WHC) as an official corporate habitat and Corporate Lands for Learning. This module is ideal for other Corporate Lands for Learning sites, as well as local parks, school grounds, and greenspaces that contain three different habitats.

A special thanks to the Natural Resources Conservation Service for funding, and all the partners as listed below.

For more information on Team Flight and the Wings of Wonder project, including ways to make your backyard or school yard inviting to birds, log on to:

<http://trfn.clpgh.org/wings>

Also visit the Backyard Conservation section of the WHC website at:

<http://www.wildlifehc.org/backyard>

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Investigations

Share your "I wonder" questions with your classmates. Did anyone else ask the same question as you? Are there any you would like to investigate further?

List some ways to further investigate your questions...

I wonder how many...I wonder if I could...I wonder how we could find out...

Habitat is a science word for a place that provides for all the needs of a living creature, or organism. All organisms need to have certain things to live. Can you think of a list of things that you need in order to survive? Write them below.

Then, compare your list with your classmates. Can you find several things that everyone needs in order to survive? Circle them.

My Field Guide to Common Birds

Color in these birds with the help of a field guide prior to your visit.

Eastern Bluebird

Sialia sialis Length 7"

Lives along forest edge, burned or cutover woodland and open country with scattered trees. Nests in cavities. Eats insects and berries.



American Goldfinch

Carduelis tristis Length 5"

Lives in weedy and groomed fields, open woodland. Nests in branch fork using grasses and other vegetation.



Tree Swallow

Tachycineta bicolor Length 5 3/4"

Lives in open country, woodland edge, usually near water. Nests in tree hole or other cavity. Eats insects - berries when insects are unavailable.



Illustrations by Maureen Ryan

My Wonder Journal

Scientists always have questions. They ponder problems, or things they don't understand, and then try to investigate to understand the world better. Based on your study visit today, what do you wonder about?

I wonder...

I wonder...

I wonder how many...I wonder if I could...I wonder how we could find out...

"Bird on a Stick" continued

Bird Species	Habitat Station
Wood Thrush	
Eastern Towhee	
Black-capped Chickadee	
Great Blue Heron	
Red-winged Blackbird	
Wood Duck	

Ruby-Throated Hummingbird

Archilochus colubris Length 3 3/4"
Lives in woodlands, open areas with scattered trees, gardens parks. Nests on a small downward inclined tree limb. Diet includes spiders, nectar and tree sap from woodpecker drilling.



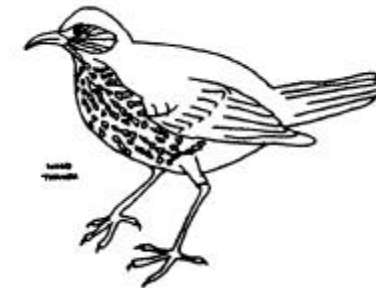
Downy Woodpecker

Picoides pubescens Length 6 3/4"
Lives in woodlands, parks, orchards. Nests in tree cavities. Diet is 75%-85% insects fruit, seeds, sap.



Wood Thrush

Hylocichla mustelina Length 7 3/4"
Lives in mixed forest, especially near water. Nests made of weed stalks, grass, on base of leaves, middle layer of mud, lined with dark root hairs. Diets includes insects with fruit being 1/3 of its diet.



Eastern Towhee

Pipilo erythrophthalmus Length 7 1/2"

Lives on forest edge, thickets, woodland. Nests on ground in scratched depression. Lined with leaves, grass, bark, twigs, etc. Eats insects, grass seeds, acorns, berries.



Black-capped Chickadee

Poecile atricapillus Length 5 1/4"

Lives in woodlands, thickets, parks. Nests in cavities. Eats seeds, spiders and their eggs, and fruit.

Great Blue Heron

Ardea herodias Length 46"

Lives near marshes, swamps, lakes, rivers. Nests in high trees in groups called a "rookery". Eats fish.



"BIRD ON A STICK"

After the 15 minute observation period, each group will have a set of "Birds on a Stick". Your job is to try and place the birds in their correct habitat by where they nest, what they eat and the type of area they prefer. As you place the "Birds on a Stick" in their habitat, list below whether the habitat station is forest, field, wetland or a combination. Mark any notes or questions you may have under the bird for further investigation.

Hint: Using your field guide could be very helpful!

Bird Species	Habitat Station
Eastern Bluebird	
American Goldfinch	
Tree Swallow	
Ruby-throated Hummingbird	
Downy Woodpecker	

BIRD OBSERVATION STATION 3

DATE:

WEATHER:

Sunny

Cloudy

Warm

Cool

Rainy

Snowy

TIME STARTED:

TIME ENDED:

LOCATION:

DESCRIBE HABITAT:

FIELD MARKS:

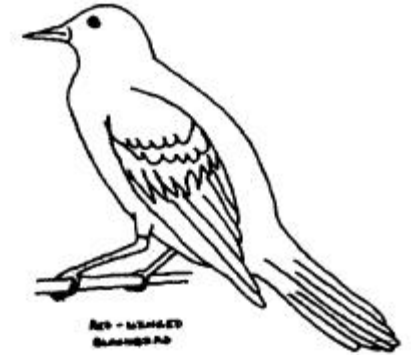
BEHAVIOR EXHIBITED:

I THINK MY BIRD IS A:

Red-winged Blackbird

Agelaius phoeniceus Length 8 3/4"

Lives near marshes, along streams, fields. Nests near or over water usually in Vegetation or shrubs growing out of the water. Eats insects, seeds, occasionally fruit.



Wood Duck

Aix sponsa Length 18 1/2"

Lives in wooded swamp, flooded forest, pond, marsh. Prefers to nest in tree cavity or nest box. Eats seeds, acorns, berries, insects.

Study Visit Overview

Habitat Station 3

Below draw a map of the third Bird Habitat Station

1. Each team will visit three habitat stations (forest, wetland, and meadow) to discover the different habitats and birds that live there.
2. Bird Observation: Upon quietly arriving at each station, begin a bird observation period for ten-fifteen minutes. Observe carefully 1-2 individual birds, noting as much as possible about the bird. Fill in the appropriate observation logs that follow, noting behavior, field markings, and location.
3. "Bird on a Stick:" Once the observation period is over, then investigate the habitat station to determine which of the birds in your field guide would live in this station. Look at the plants, water, shelter and other clues which make up the habitat. Mark your choices with the "bird on a stick."

BIRD OBSERVATION STATION 2

DATE:

WEATHER:

Sunny

Warm

Rainy

Cloudy

Cool

Snowy

TIME STARTED:

TIME ENDED:

LOCATION:

DESCRIBE HABITAT:

FIELD MARKS:

BEHAVIOR EXHIBITED:

I THINK MY BIRD IS A:

BIRD OBSERVATIONS

DIRECTIONS: In each of the habitats that you visit, choose one bird to observe.

Note the type of habitat where it is found (meadow, pond, forest, combination), what the habitat looks like (shrubs, grasses, trees, etc.), field marks on the bird (wing bars, color, size, eye stripe, etc.), and what it's doing when you are observing it (i.e. singing, eating, flying, etc.) Try to find a bird that looks like it is going to stay in one place for a while. The disadvantage to bird watching is that they tend to fly away before you get enough information. Do the best that you can. If the bird does leave before your time is up, record what you saw and focus on another bird in the area.

Habitat Station #1

Below draw a map of the first Bird Habitat Station

BIRD OBSERVATION STATION 1

Habitat Station 2

DATE:

WEATHER:

Sunny

Cloudy

Warm

Cool

Rainy

Snowy

TIME STARTED:

TIME ENDED:

Below draw a map of the second Bird Habitat Station

LOCATION:

DESCRIBE HABITAT:

FIELD MARKS:

BEHAVIOR EXHIBITED:

I THINK MY BIRD IS A: