

Sacramento National Wildlife Refuge Complex



Junior Refuge Ranger

Willows, CA

Ages 5-12



This book belongs to: _____

Welcome to the Sacramento National Wildlife Refuge!

Do you want to have fun learning about local wildlife and ways you can help protect their habitat?

Then the Junior Refuge Ranger Program is for you!

How to become a Junior Refuge Ranger and earn an official certificate and some Refuge Collector's Cards:

1. Complete the number of activities for your age group.



You only need to finish the number shown on the next page, but **the more activities you complete the more collector's cards you will get!** You may choose which activities to complete. It's okay if the answers aren't perfect, just try your best. When you complete an activity, check it off on the next page. If you need help, ask an adult or a ranger at the refuge.

2. Take the Junior Refuge Ranger pledge.



Sign the pledge at the end of this book to show that you care about conservation and wildlife.

3. Show your book with completed activities to a ranger at the Sacramento National Wildlife Refuge Visitor Center.



You can also mail it to the refuge address on page 17 with a return address. A ranger will check your work and mail your book back along with your collector's cards and a signed certificate to show you have become a Junior Refuge Ranger!

Activity Checklist

- Activity 1: Habitat Scramble
- Activity 2: What Are Wetlands?
- Activity 3: Connection Section
- Activity 4: Refuge Bingo
- Activity 5: Tracking Evidence
- Activity 6: Migration Station
- Activity 7: A-maze-ing Wildlife
- Activity 8: Camouflage
- Activity 9: The Name Is the Same
- Activity 10: Line Up
- Activity 11: Bird Is the Word
- Activity 12: Tell a Friend



Ages 5-8

At least **5** activities

Ages 9-12

At least **8** activities

**How old are
you?**

**How many
activities did you
complete?**



Keep a look out for **this symbol**. It highlights special vocabulary words that you will need to know to complete one of the activities!



Extra: Look on the bottom of some of the pages for special things to think about. You can discuss questions or information with your family, friends, or a ranger at the refuge.

What does the Sacramento National Wildlife Refuge do?

The refuge provides habitat for wildlife. A **habitat** is a home for plants and animals. Every plant and animal needs **4 things** to survive:



1. FOOD

Plants and animals need food to help them grow and reproduce.



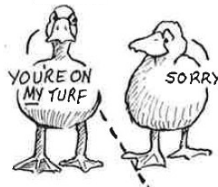
3. SHELTER

Plants and animals need shelter for safety from bad weather and predators.



2. WATER

Plants need water to photosynthesize and animals need it to build body fluids.



4. SPACE

Plants and animals need space to grow, stay healthy, and reproduce.

Activity 1: Habitat Scramble

Unscramble each of the clue words that describe part of a habitat. Copy the letters from the squares with numbers under them to their matching number to complete the secret message.

**PARTS
OF A
HABITAT**

➔

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6

➔

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5 2

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7 4

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1 3

SECRET MESSAGE:

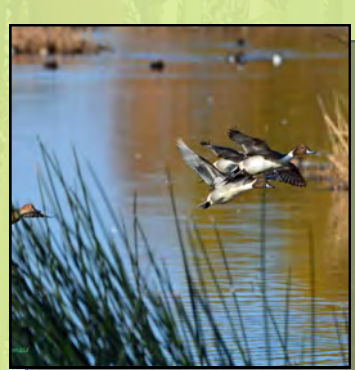
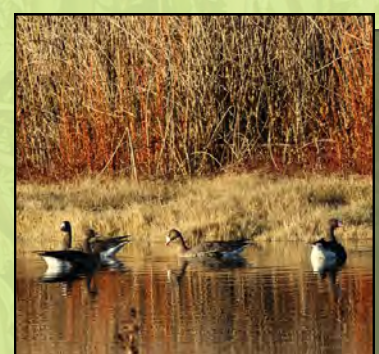
One type of habitat is called the

					N		
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1 2 3 4 5 6 7

Activity 2: What Are Wetlands?

The refuge provides wetland habitat for plants and animals. A **wetland** is a place where water meets land. Some examples of wetland habitat can be found at the edges of lakes, oceans, and ponds. Wetland summers are often warm and in some places the water dries up. There is usually a lot of rain in the winter. You can find trees, shrubs, and grasses in many types of wetland habitat. Circle the pictures that you think are of wetland habitat.



Extra: What is another example of a wetland? _____

What Are Waterfowl?

Waterfowl are certain species of birds that can be found in the wetlands. Only 3 types of birds are considered **waterfowl**:

1. GEESE



2. DUCKS



3. SWANS



So, what makes these birds special? Why are they considered waterfowl and other birds aren't?

Scientists put animals into special groups because they have similar traits. Waterfowl have certain body parts that help them survive in their habitat. Let's take a closer look...

All waterfowl have:

FLAT BILLS

that help them eat plants and bugs



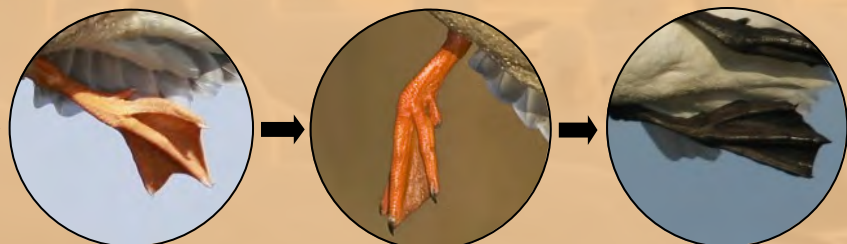
LONG NECKS

that help them reach food at the bottom of ponds



WEBBED FEET

that help them swim faster



Activity 3: Connection Section

Connect the dots to draw the figure. Then answer the questions to find out if the bird is a waterfowl. Use the pictures and information on the left page if you need help answering the questions.

Does it have a flat bill? _____



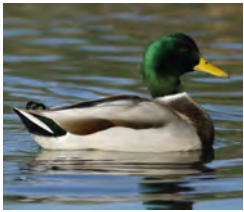
Does it have a long neck? _____

Does it have webbed feet? _____

Did you answer yes to all 3 questions? Is it a waterfowl? _____
Hint: This bird is called a Canada Goose.

Activity 4: Refuge Bingo

The Sacramento National Wildlife Refuge is a wonderful place to explore. Take a hike on the Wetland Walk trail or have an adult drive you around the auto tour. Cross off anything you see, smell, and/or hear along the way.



Duck



Mud



Visitor center



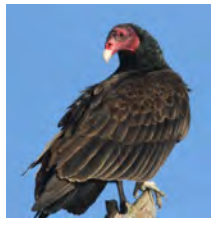
Jackrabbit



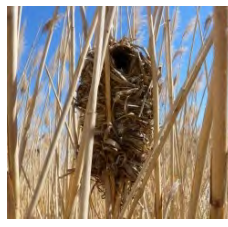
Bulrush



Egret



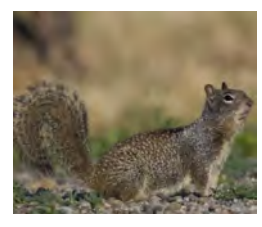
Turkey vulture



Nest



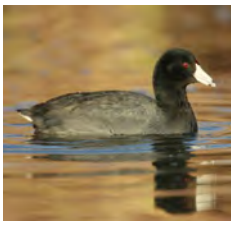
Viewing platform



Squirrel



Pond



Coot



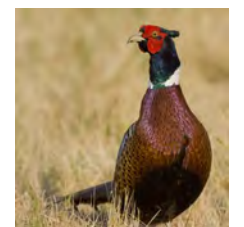
You pick!



Trail



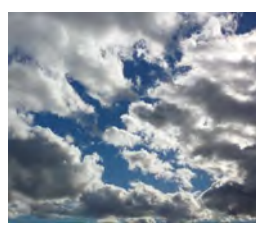
Hawk



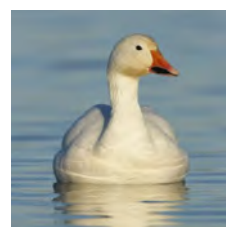
Pheasant



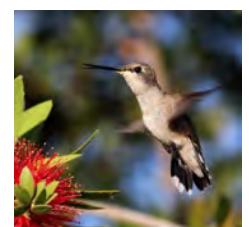
Cattails



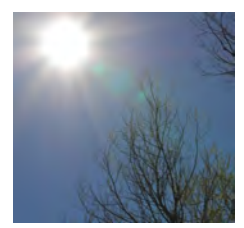
Clouds



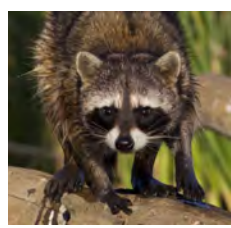
Goose



Hummingbird



Sunshine



Raccoon



Saltgrass



Rain



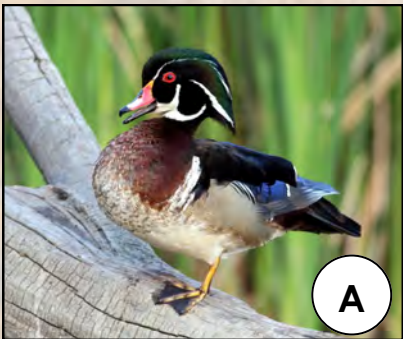
Animal tracks

Extra: If you get 5 squares down, across, or diagonally, be sure to ask a ranger for the special Refuge Collector's Card!

If you keep your eyes open, you can often find evidence of wildlife. In this case, **evidence** is a sign that helps prove animals were in the area.

Activity 5: Tracking Evidence

Footprints, or tracks, are one type of evidence you can find on the refuge. Look at the pictures of some animals you can find on the refuge. Write the letter from the picture under the footprints you think belong to that animal.



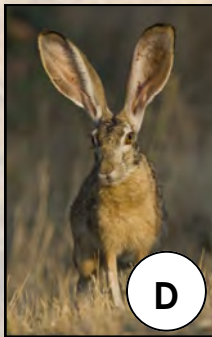
Duck



Sparrow



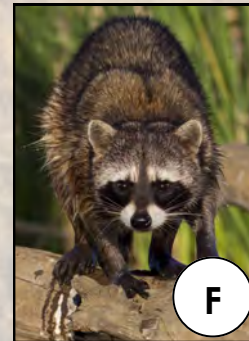
Coyote



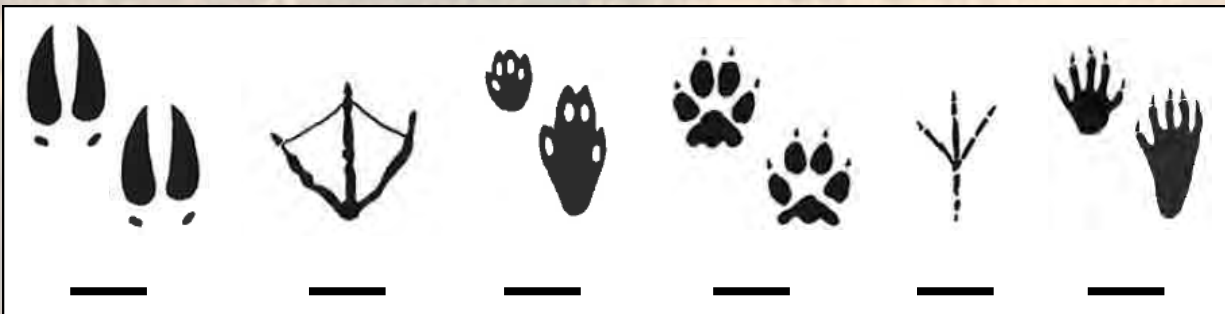
Jackrabbit



Deer



Raccoon

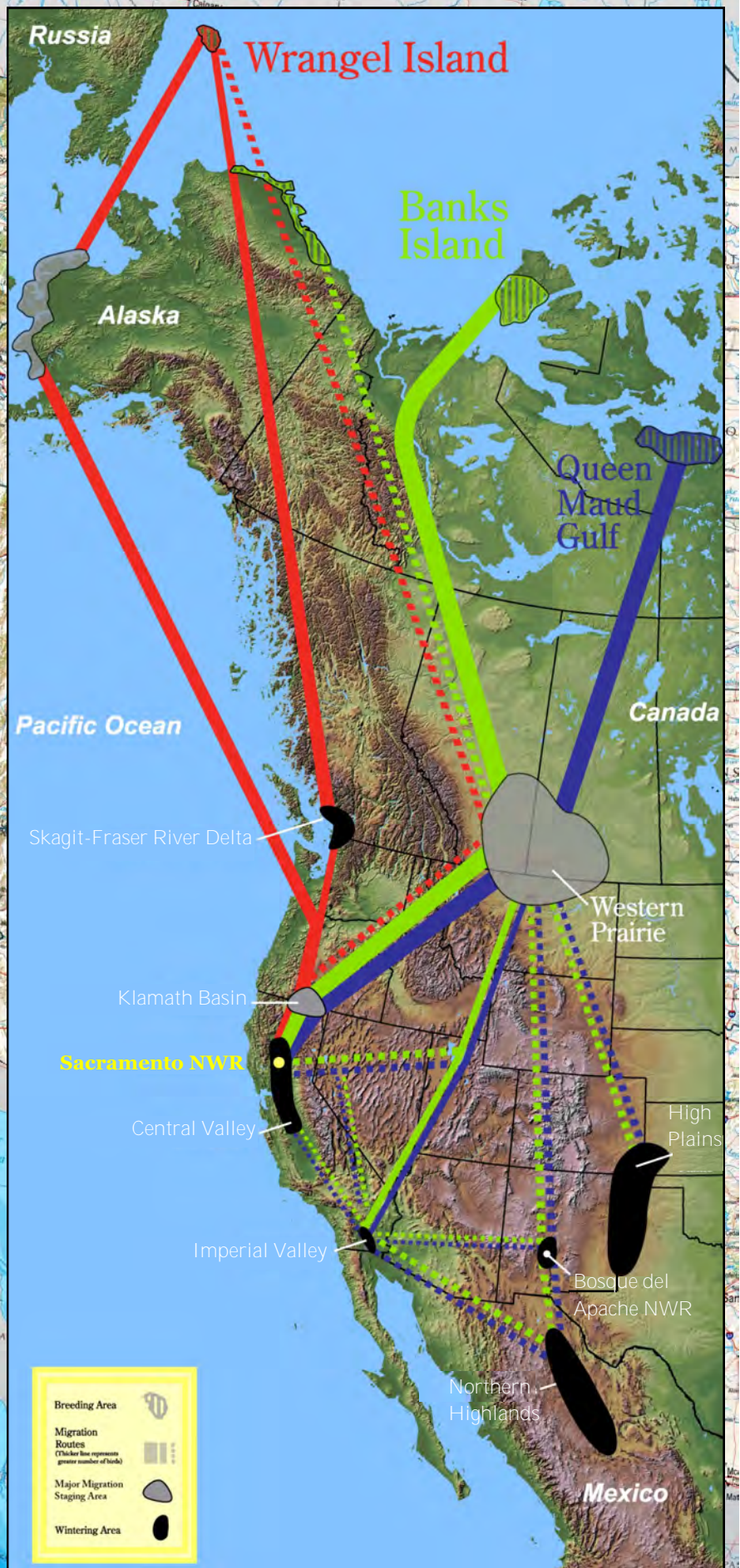
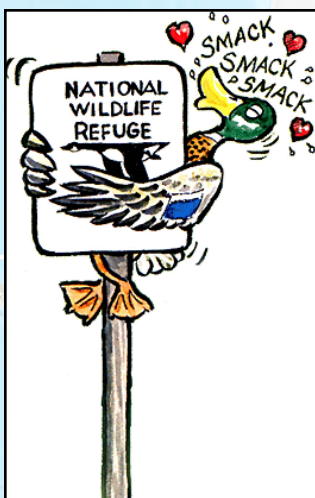


Extra: What are some other types of evidence that would show an animal has been there? _____

The Sacramento National Wildlife Refuge gets millions of birds that migrate here every year. To **migrate** means to move from one place to another.

Many geese travel over 3,000 miles to get here! Snow geese **breed** (have babies) way up in Canada, Alaska, and Russia. In the winter, snow covers plants that they eat and makes it hard for them to survive. The geese then fly south where it's warmer and they can get enough food to survive.

To get to the refuge, the geese use the Pacific Flyway. A **flyway** is like a highway in the sky. The thick lines and dotted lines on this map show the routes the geese take to migrate. Once they make it to the refuge, the geese are very tired from flying so far. But they rest and eat and soon they're healthy again.

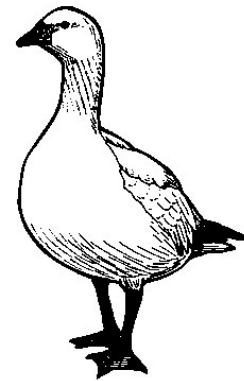
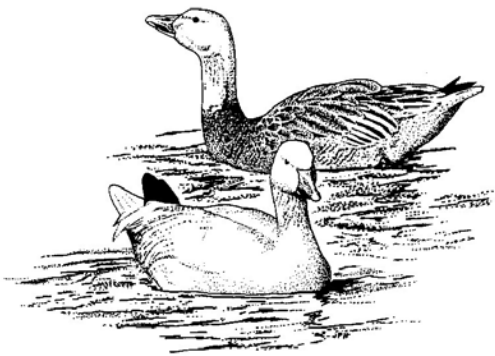




Activity 6: Migration Station

Geese stop at “rest stops” for a few days or weeks to refuel as they migrate to the refuge. Look at the map on the left to fill in the blanks below. Start from the top of the map where geese breed and follow the shortest distance on the colored routes to find where the geese stop when they migrate. Ask an adult if you need help.

1. A goose from **Wrangel Island** flew along the Pacific coast to **Klamath Basin** for the winter. On its way, it stopped at _____.
2. A goose from **Banks Island** flew to **Imperial Valley**. On its way, it stopped at _____.
3. A goose from **Queen Maud Gulf** flew to **Northern Highlands**. On its way, it stopped at _____ and _____.



Living in the wild isn't so easy. Wildlife have to find food, water, and **shelter** (a place that keeps them safe). They have to avoid **predators** (animals that hunt and eat other animals). They also have to care for their babies.

Activity 7: A-maze-ing Wildlife

The bald eagle is hungry today. Help the dad duck find his way to help protect the mom and baby ducks. He can stop to eat some plants for strength and can hide in the tall reeds, but make sure he doesn't run into the bald eagle who might eat him!

Start

PREDATOR!

Finish
Phew! Everyone is safe!

Have you ever played hide and seek with your friends? Do you think it's easier to hide when you wear colors that match your surroundings?

Camouflage is what helps animals hide in their habitat. Sometimes their fur or feathers are special colors that help them blend in with their surroundings. Sometimes they use special materials that help hide their shelter from predators.

Activity 8: Camouflage

Birds use camouflage in different ways to hide from predators and stay safe. Circle the pictures that show good examples of camouflage that can help keep birds safe. **Hint:** Do you think bright colors are good for hiding?



Wilson's snipe



Nest



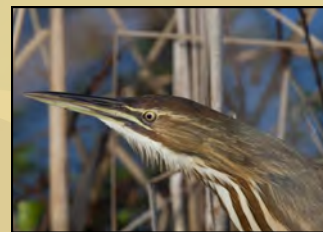
Wilson's warbler



Killdeer eggs



Yellow-headed blackbird



American bittern



Male pheasant



Female pheasant

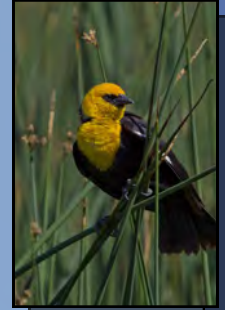
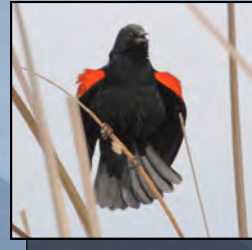
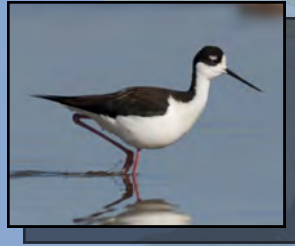
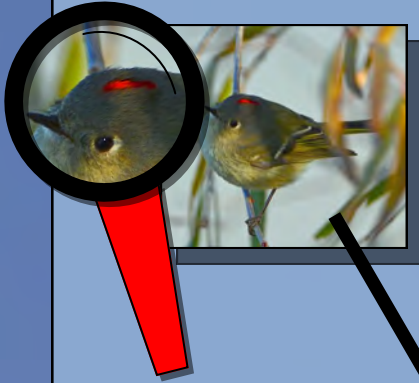


Pheasant babies

Extra: These birds all live in the wetlands. What colors seem to work best for camouflage in the wetlands? _____

Activity 9: The Name Is the Same

Sometimes the name of a bird will give you a clue to what it looks like. Draw a line from each clue to the picture of the bird it describes. Ask an adult if you need help.



The **red-winged blackbird** is black with red on the tops of its wings.

The **ruby-crowned kinglet** has a ruby red strip on the crown of its head.

The **yellow-headed blackbird** is black with a yellow head.

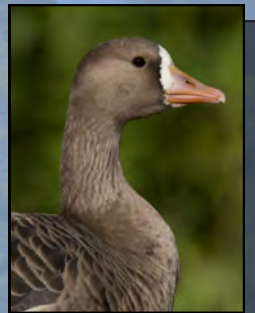
The **black-necked stilt** has a black strip on the back of its head and neck.

The **white-crowned sparrow** is small with white stripes on the crown of its head.

The **northern pintail** has long, black tail feathers that stick out like a pin.

The **green-winged teal** has a bright green strip on its wing.

The **white-fronted goose** has a white strip between its face and its beak.



Extra: Did you know that the bald eagle is not actually bald? Its name comes from the Old English word, "**piebald**," which means white-headed.

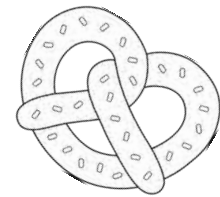
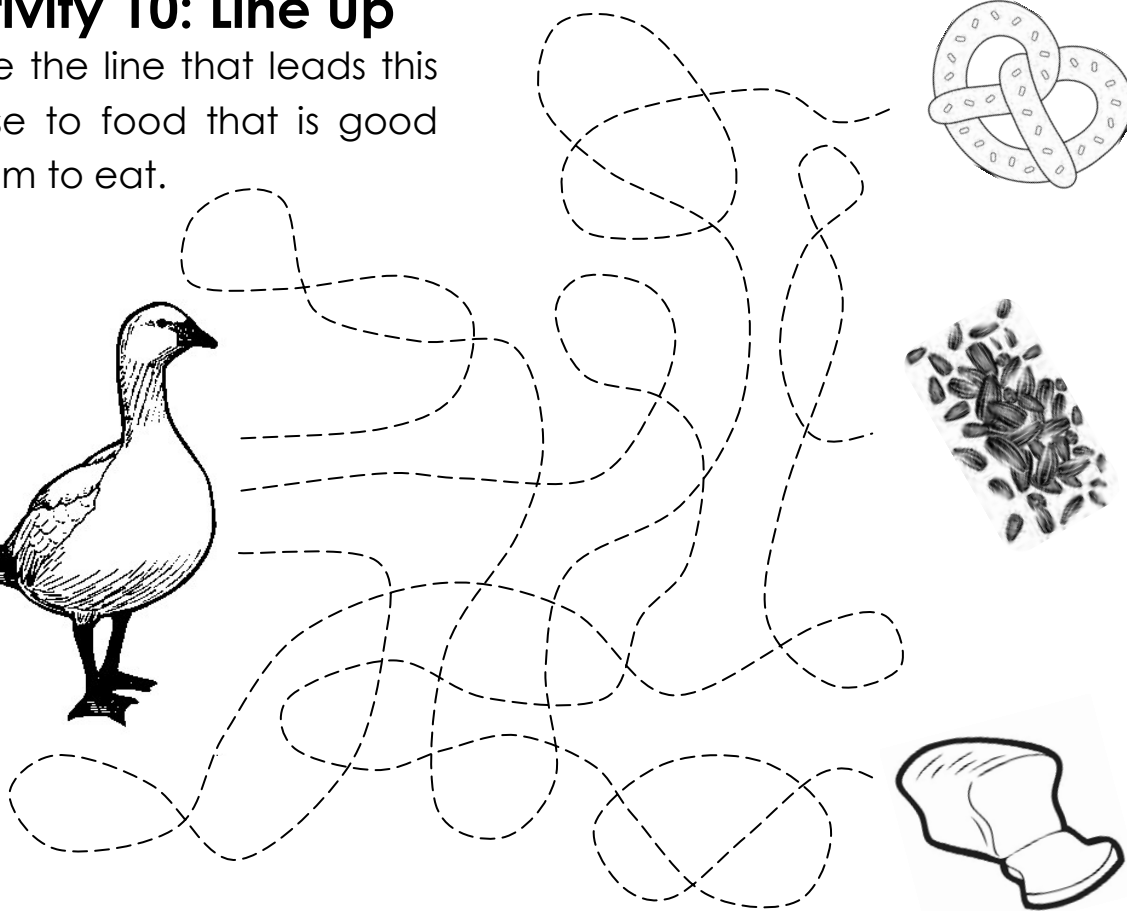
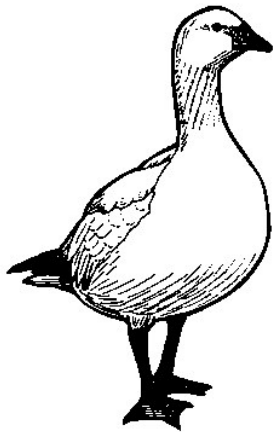
What should I feed birds?

It is a nice thought to feed birds, but most human food is not good for birds. Bread, crackers, and other similar foods don't give birds the nutrition they need. It's like humans eating fast food; it might make you full, but it's not healthy for you. It is better to give birds foods like seeds, nuts, or berries.



Activity 10: Line Up

Trace the line that leads this goose to food that is good for him to eat.



What do I do if I find a baby bird out of its nest?

Baby birds that have fluffy feathers and can walk have left the nest but are still being cared for by their parents. It's good to want to help, but they do not need human help. Moving the bird or taking it home can actually hurt it. It is best to leave these birds where you find them.



Activity 11: Bird Is the Word

Review the list below of some words you learned in this book. If you need help remembering what a word means, go back through the book and look for **this symbol** and read the sentence the word is in for help. Then, use the words in the list to fill in the blanks. Each word will only be used once.

habitat	wetland	waterfowl
migrate	flyway	shelter
predators	evidence	camouflage

- 1) You can use _____ like animal tracks to learn what animals were in the area.
- 2) Millions of birds _____ from the north to the Sacramento Refuge every year.
- 3) A _____ needs to have food, water, shelter, and space for plants and animals to survive.
- 4) Animals that hunt and eat other animals are called _____.
- 5) Ducks, geese, and swans are the three types of birds that are _____.
- 6) A _____ is like a highway in the sky that the birds use to find their way when flying.
- 7) Waterfowl often use tall reeds for _____ from bad weather and predators.
- 8) You can find _____ habitat at the edges of lakes, oceans, and ponds.
- 9) Sometimes the coloring on an animal helps it blend into its surroundings. This is called _____.

Activity 12: Tell a Friend

What would you tell your friends or family about what you experienced on the refuge today? Draw a picture of something you saw today and fill in the blanks on the other half to tell them about your time at the refuge.

Hello from the

SACRAMENTO NATIONAL WILDLIFE REFUGE!

Draw a picture
of your day at
the refuge!

Fill in the blanks
about your time at
the refuge!

Dear _____,

Let me tell you about my day at the Sacramento Refuge! One cool thing I saw was _____.

I also liked learning about _____.

If you ever get to visit the refuge, you should definitely _____.

_____ because that was my favorite part of the trip!

From, _____



Congratulations! You did it! One more step to become a Junior Refuge Ranger...



The Junior Refuge Ranger Pledge

I am proud to be a Sacramento NWR Junior Refuge Ranger.

I promise to help wildlife habitat, not hurt it.

I will make good choices for the environment.

I will share what I learn with my friends and family.

Junior Refuge Ranger Signature

Date

You may want to double check that you completed the correct number of activities for your age. When you're sure it's all complete, show your book to a ranger at the Sacramento Refuge or mail it to the address below. Then, wait for your official Junior Refuge Ranger certificate and collector's cards!

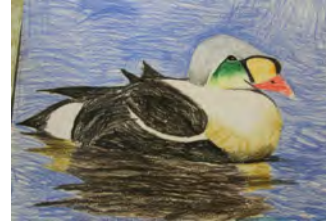
Sacramento National Wildlife Refuge

752 County Rd. 99W

Willows, CA 95988

Would you like to help the refuge reach other young conservationists by submitting your waterfowl art into the Junior Duck Stamp Contest? You might even win some prizes! To learn more about the contest, go to:

<http://www.fws.gov/refuge/Sacramento/JDS.html>



For more info about the Sacramento National Wildlife Refuge Complex:



Sacramento National Wildlife Refuge Complex

752 County Rd. 99W

Willows, CA 95988

530-934-2801

www.fws.gov/refuge/sacramento



To learn more about other refuges and the National Wildlife Refuge System:

www.fws.gov/refuges

Book design: Krista Nickles, 2015.

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Activity 1: Food, space, shelter, water, wetlands; Activity 2: (reading across) 1, 3, 5, 6, 8; Activity 3: Yes, yes, yes, yes; Activity 5: E, A, D, C, B, F; Activity 6: Skagit-Fraser River Delta, Western Prairie, Western Prairie & Bosque del Apache NWR; Activity 8: (reading across) 1, 2, 4, 6, 8, 9; Activity 9: (top row, left to right) ruby-crowned kinglet, black-necked stilt, red-winged blackbird, yellow-headed blackbird (bottom row, left to right) green-winged teal, white-fronted goose, white-crowned sparrow, northern pintail; Activity 10: sunflower seeds; Activity 11: evidence, migrate, habitat, predators, waterfowl, flyway, shelter, wetland, camouflage.

Answer key:



Junior Refuge Ranger