

A
COMPANION
GUIDE FOR
TEACHERS AND
PARENTS



BY PETER WOHLLEBEN

DISCOVERING

THE INCREDIBLE

CREATURES ALL

AROUND US



Title:

Do You Know Where the Animals Live?
Discovering the Incredible Creatures All Around Us

Author: Peter Wohlleben

Genre: Nonfiction

Themes:

Animal behavior, ecosystems, adaptation, interdependence, STEM

Suitable for:

Ages 8-10, Grades 2-5

Guided Reading Level: R

Lexile Level: 870

Common Core Standards:

RI.4.1,2,3,4,5,7,8,9 W.4.1.1a,1b,1c,1d,2,2a,2b,2d,2e,4,5,6,7,8,9,9b,10 SL.4.1,1a,1b,1c,1d,2,3,4,5,6 L.4.1,2,2a,2b,2c,2d,43,3a,3b,3c,4,4a,4b,4c,6

Next Generation Science Standards:

4-LS1.A: Structure and Function4-LS1.D: Information Processing



Have you ever wondered if animals dream? Or if they can be brave, scared, and loving, just like we can? Did you know that animals talk to each other through songs, stomps—and even farts? Explore these questions and more in Peter Wohlleben's anticipated follow-up to his acclaimed children's book *Can You Hear the Trees Talking*? Kids will learn how to spot animals' homes and safely follow their movements. And they'll meet some of the strangest, most amazing creatures on Earth, including ones that like to impress their friends and others who are masters of disguise.

Do You Know Where the Animals Live? features quizzes, hands-on activities, and more interactive elements to help kids study and understand the animals in their own backyards and around the world—and make our planet a better place for them all.





ABOUT THIS GUIDE

These discussion questions and activities are designed to support the goal of helping students explore *Do You Know Where the Animals Live?*, the science presented in the book, and their own creativity.



BEFORE READING



The following questions and activities build the context and introduce the topic of the book, and establish prior knowledge and interest.

- Before reading, look at the cover photograph and book title.
 What information do the photo and book title give the reader?
- 2. Share with the class something you know about animals (whether they're pets or in the wild), or what animals mean to you.
- **3.** Do you think this is a fictional story or an informational book? What are the clues that lead you to your answer?
- U. Open the book and read the table of contents. Make a list of the sections or chapters that look interesting or unusual. Mark the sections you want to read.

Language Arts: Text Types and Features

- **1.** Glance through the book without reading it. Make a list of the different text features that you find.
- **2.** What is the difference between a book of fiction and a book of nonfiction? Do you think this book is fiction or nonfiction? Explain.
- **3.** Based on what you have observed so far, what do you think this book is about?
- **4.** Explain the purpose of including a table of contents in an informational book.
- **5.** Read through the table of contents. Make a list of the sections or chapters that look interesting or unusual. Mark the sections you want to read.
- 6. What questions do you have about the book?
- 7. Look at the headings for each two-page section. Why do you think the author uses questions for each section?



These activities check comprehension, stimulate interest, involve readers in reflection as they read, and encourage consideration of other readers' reactions.

Identify the Author's Purpose (Comprehension)

- Read the author's introduction, "Let's Go on a Journey of Discovery."
 - What does the introduction tell you about Peter Wohlleben and his point of view?
 - What is Peter Wohlleben trying to explain, describe, or answer?
 - What is Peter Wohlleben's purpose in writing this book?

All Chapters: Try This! Sections (Experiential Learning)

- 2. Look for the Try This! sidebars throughout the book. These activities offer excellent suggestions for experiential learning. Most of these activities are possible even if you live in a city or far away from a forest. For example, the Try This! sections on the following pages can be done anywhere you can find a tree (or two).
 - Make a butterfly spa (page 7): Butterflies get hot when the sun shines, just as you do. You might sit under a tree or run through a lawn sprinkler to cool down. Butterflies look for moist sandy or muddy areas, where they fold up their wings to keep the sun from shining on them and sip the minerals they need to stay healthy. You can create a butterfly spa in your backyard by installing a water mister in a shady spot where there is bare soil, sand, or gravel. Every once in a while, you can add some rotting fruit as a special treat for the butterflies.
 - Look for earthworms (page 47): If you want to see earthworms, you can try luring them out of the ground. Take two sticks and bang them on the lawn or flower bed for about ten minutes. After a while the worms will come up to see if it's raining. The drumming sounds like water drops. When they realize the weather is nice, they'll disappear back into their holes.





- Install a bird bath (page 49): Just like you, birds get thirsty and like to cool off when the weather is warm. Why not add a birdbath to your backyard? It should be wide and not too deep, with a rough surface (birds don't like slippery pools any more than you do). Put it out in an open space so the birds can keep an eye out for danger, and make sure you change the water often.
- Organize a cleanup day (page 53): Many villages and towns hold a cleanup day every year. Anyone can join in, including you. On this day, volunteers help to collect all the garbage lying around in the fields and forests. Wouldn't it be great if every day was cleanup day?
- Record bird songs (page 57): It's a good thing that animals talk so much! This way you can identify them without even seeing them. This works especially well with birds. Record a bird call with a cell phone. On the internet, you'll find websites that can help you identify birds based on their calls. If you find a match, you'll know which bird you heard singing.
- Notice your fear (page 67): Pay attention to your feelings when you play tag or hide-and-seek with your friends. You know that nothing bad is going to happen and that in fact playing the game is fun. And yet, when someone sneaks up to your hiding place or is just about to catch you, you feel a bit scared. But because you're playing a game, the tingling in your belly is exciting and it feels nice. So a little dose of fear can be fun!



You can find more ideas on these pages:

- 11 animal prints
- 13 glass "diving mask"
- 27 make a lizard home
- 29 plant milkweed
- 31 identify eggshells
- 41 spot the bat

- 59 use your body language
- 61 tickle yourself
- 69 taking time to find animals
- 71 adopt from an animal shelter
- 73 read in the evening
- **3.** Pick one of these activities to try yourself. Afterward, tell a partner what happened when you tried the activity. What did you notice? Did it turn out the way you expected?





Chapters 1, 3 & 4:

Families, Babies, and Homes (Life Cycles)

4. In this activity, students can share the special terms that they know for animal babies. Depending on the group, this activity can also be expanded to include the names for homes, adult males, and adult females.

The teacher can write down the answers on a chalkboard, whiteboard, or flip chart. Sample answers are in parentheses after the question, but there are certainly more than those listed below.

Remind the class that sometimes there are more than one word for the same thing. For example, a baby cougar can be called a cub or kitten. And a baby butterfly is a caterpillar or a larva when it looks like a small worm, then a chrysalis or a pupa when it weaves its cocoon before becoming a butterfly. As well, sometimes there are no specialized words (for baby or home, etc.).

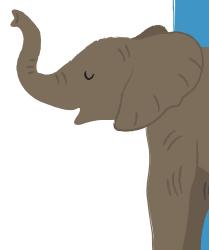
a. Write down the answers to these questions about animal babies:

- What animals have babies that are called kits or kittens?
 (beavers, cats, mice, rats, skunks, squirrels)
- Cubs? (bears, lions, tigers)
- Calves? (cattle, bison, elephants)
- Chicks? (many different kinds of birds)
- Caterpillars? (butterflies, moths)
- Tadpoles? (frogs, toads, newts, salamanders)
- Joeys? (koalas, kangaroos)
- Kids? (goats, humans)
- What animals have unique names for their babies?
 (gosling, cygnet, duckling, piglet)
- Are there any similarities between animals that share the same name for their babies?

b. Write down the class's answers to these questions about animal homes:

- What animals live in burrows? (rabbits, mice, moles, gophers, burrowing owls)
- What animals live in dens? (lions, bears, hyenas, foxes)
- What animals live in nests? (birds, snakes, ants, platypuses, raccoons, rats)







- c. Depending on your group, you can also ask the class:
 - What adult male animals are called bulls?
 (bison, cattle, seals, whales)
 - What adult male animals are called boars?
 (pigs, bears, hedgehogs)
 - What adult male animals are called bucks? (deer, rabbits, kangaroos)
 - What animals have unique names for adult males? (swan cob)
 - What adult female animals are called does? (deer, goats, rabbits)
 - What adult female animals are called sows? (pigs, bears)
 - What adult female animals are called cows? (cattle, seals, whales)
 - What animals have unique names for adult females? (fox vixen; she-wolf)

Collective Nouns (Brainstorming, Mind Mapping)



- **5.** In this activity, students will invent their own collective noun and illustrate it. To introduce this activity, it's a good idea to review what a collective noun is. What are some common collective nouns? Several picture books about collective nouns have been published, so there could be one in your library.
 - Hundreds of years ago, it became popular among the upper classes to use specialized terms for groups of animals, people, or things. We still use some of these terms today, such as a flight of stairs, a litter of puppies, a pride of lions, or a pack of wolves. Do biologists and other people who study animals use any of the more fanciful ones, such as "a murder of crows" or "a parliament of owls"? Apart from a few exceptions (like a pod of whales, or a gaggle of geese), they use the more common terms like "herd" or "flock." But it's still fun to come up with unique phrases for groups of animals.



Here are some ideas for inventing your own terms:



- a. Write the name of an animal in the middle of a blank piece of paper.
- **b.** Write verbs (doing words) or other nouns (being words) around the animal's name. Think of verbs and nouns that you associate with that animal. You may want to use a dictionary or thesaurus if you're stuck.
- **c.** Add some adjectives and adverbs (describing words) around the animal's name too. Think of adjectives and adverbs that you associate with that animal.
- **d.** Think of ways to combine a verb, adjective, or adverb with your animal in a creative or fun way.
- e. Draw a picture showing a group of your animals. Think of a picture that illustrates the new term you've invented. For example, what would a "trot of horses" look like? Or a "misery of mosquitoes"? Or an "itch of ants"? Write your collective noun somewhere on the page.



Animal Families and Life Cycles: Additional Art Project (STEAM Activity)

6. This activity can build on the previous one, or can be done on its own. It works well as a spring art project, or to tie in with a unit on life cycles.

The only essential materials are scissors and paper cut into squares of different proportions. Regular bond paper, tissue, or other light paper is better than heavier construction paper, which is harder to fold.

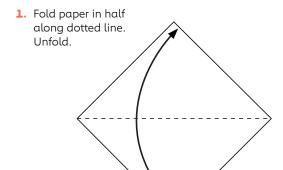
Following the instructions below, guide students through the steps to make a caterpillar (easy) and butterfly (intermediate), a pig and piglets (easy), a tadpole (easy) and frog (intermediate), or a chick (easy) and hen (advanced).

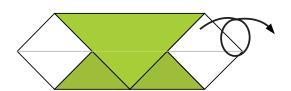
If you get stuck, there are a lot of video tutorials or websites with detailed instructions, such as those on **origami.me**.

Paper for the baby animals should be about a half or a third of the size of the paper used for the adult animals. For example, paper measuring 6×6 in (approx. 15 x 15 cm) would work for the chicks, and paper measuring 10×10 in (approx. 25 x 25 cm) would work for the hen and rooster.

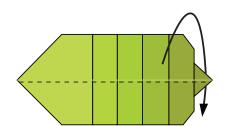
Students may want to add eyes to their animals. Or they may want to color their final product with crayons, felts, or pastels. As well, the animal families could be displayed against a construction paper background, or in a home made from materials at hand (a pipe cleaner nest, for example, or a real twig-and-straw nest).

CATERPILLAR

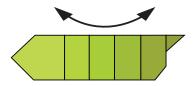




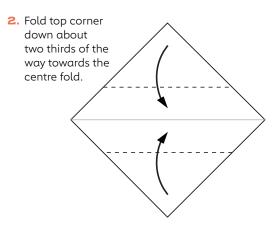
3. Flip your paper over.

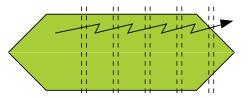






7. Pull the model apart a little to give it a curved shape

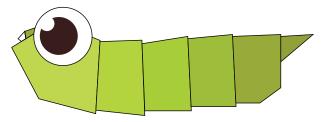




4. To make the segments of the caterpillar's body, make a series of pleats. To make each pleat, fold the paper to the left along the dotted line closest to the caterpillar's head. Fold the paper back to the right along the next dotted line. If you look at the fold from the side, it zigzags like the letter Z. Repeat to make more pleats.

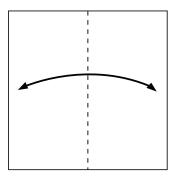


6. Make an inside reverse fold on one side. This will be your caterpillar's head. Fold the top corner along the dotted line and then unfold it. Push the paper all the way inside the model along the fold lines you just made and flatten along the creases.

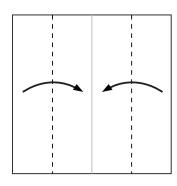


8. Decorate with eyes.

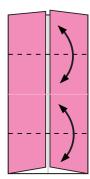
BUTTERFLY



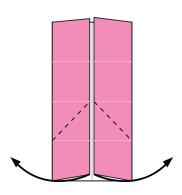
 Start with your paper white side up. Fold in half horizontally and then unfold it.



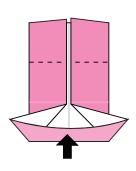
2. Fold the left quarter of the paper along the dotted line to the center line. Repeat on the right side. Now you have a tall, skinny rectangle.



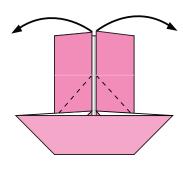
3. Fold the rectangle in half along the white line and unfold it. Then fold the top quarter of the rectangle along the dotted line to the center line. Unfold. Fold the bottom quarter of the rectangle along the dotted line to the center line. Unfold.



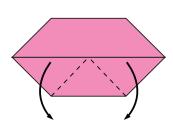
4. Pull the bottom two corners up and out. Fold along the dotted lines.



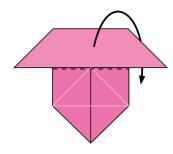
5. Bring the bottom edge up to the center line and press it flat.



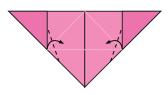
Repeat by pulling the top two corners up and out. Fold along the dotted lines.



7. Bring the top edge of the paper up to the center line and press it flat. This is called a boat base. Take the two corners of the bottom half of the base. Lift them up and together. Fold along the dotted lines.



8. Fold the top half of your boat base backwards. Or, flip your model over and fold the top half down. Then flip your model over again.



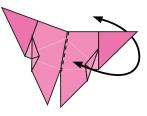
9. Fold the top flap of paper on the right along the dotted line towards the center. Do the same on the left side.



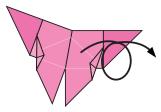
10. Fold the entire model in half.



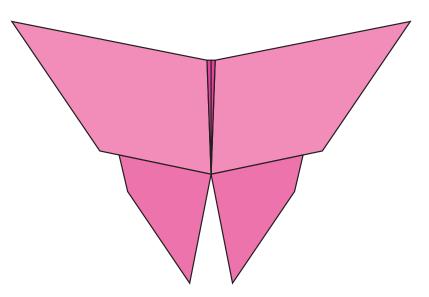
11. Bring the top flap back and fold along the dotted line. Repeat on the other side. Crease well. This creates a small valley fold along the back of your model.



12. Unfold the entire model to open it up.

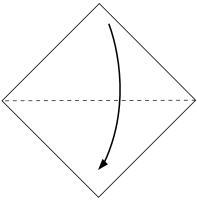


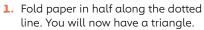
13. Flip the model over. Reverse the small valley fold. This will make the body of your butterfly.

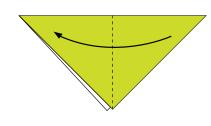


14. You can lift the top wings of your butterfly to make it "fly."

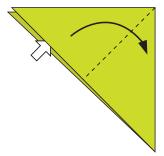
TADPOLE



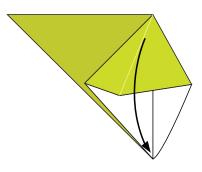




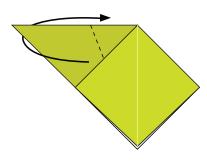
2. Fold your triangle in half again, along the dotted line. You will now have a smaller triangle



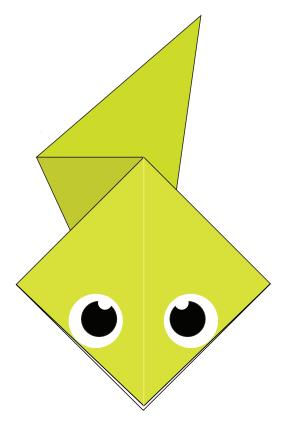
 Grab the corner of the top layer and make a crease by folding it back towards the bottom corner, along dotted line. This will be your tadpole's head.



4. Pull up the corner of the top layer. Bring point A down to meet point B. Flatten along the creases.

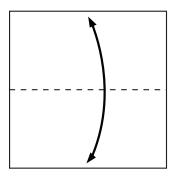


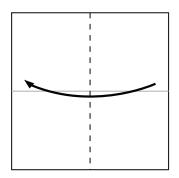
5. Fold backwards along dotted line to make a tail.

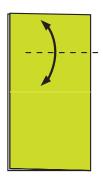


6. Finished tadpole.

JUMPING FROG

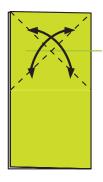


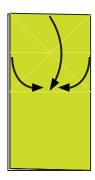




 Start with your piece of paper white side up. Fold in half horizontally and then unfold. **2.** Fold your paper in half vertically.

 Fold the top quarter down along the dotted line towards the center. Crease this fold well and then unfold it.

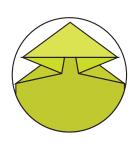




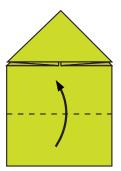
called a water bomb base.

5. Push in the sides and fold the paper in half horizontally following the creases

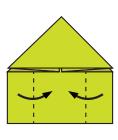
you already made. Press flat to make a two-layered triangle. This triangle is



4. Fold the top right-hand corner diagonally, along the dotted line towards the center line. Crease this fold well and then unfold it. Repeat by folding the top left-hand corner down diagonally, along the dotted line. Unfold.

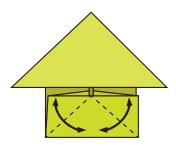


7. Fold the left side of the paper towards the center. Do not fold the top triangle. The bottom layer of the triangle will tuck behind it. Repeat on the right-hand side. You will now have a shape that looks like an arrow.

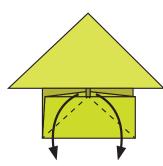


8. Fold up the bottom part of the paper along the dotted line.

6. Fold the bottom half of the paper up along the dotted lines.



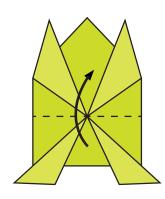
Fold the outside corners of the bottom rectangle down, along the dotted lines. Crease well and unfold.



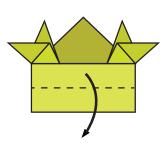
10. Unfold the rectangle of your arrow by pulling the top edge down. Open up the rectangle and fold the top edge up towards the centre to make a boat base. Fold the two flaps of paper on each side down.



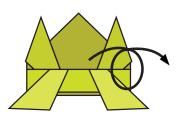
11. You should now have an arrow with a point at both ends. Fold the top right part of the paper up along the dotted line to make one of the frog's front legs. Repeat on the top left side. Then fold the bottom right part of the paper along the dotted line to make one of the frog's back legs. Repeat on the bottom left hand side. Don't worry too much if the angles of these folds don't match the diagram exactly.



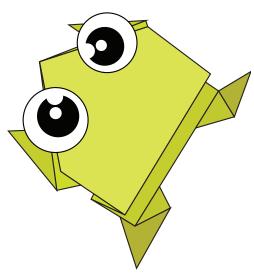
12. Fold the entire model in half along the dotted line.



13. Make a pleat by folding the top part of the model down along the dotted line.

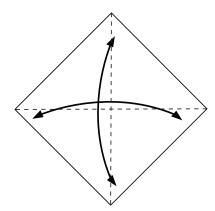


14. Flip your frog over.

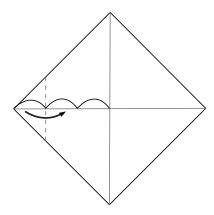


15. Finished frog. Push down on the folds of your frog's back to make it jump.

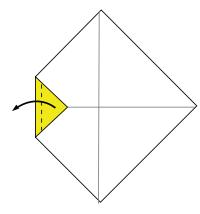
CHICK



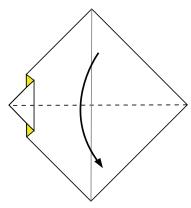
1. Fold paper in half along dotted lines, Unfold.



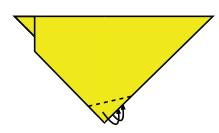
2. Fold one corner a third of the way towards the center fold.



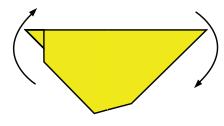
3. Fold that corner backward, along dotted line.



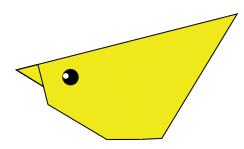
4. Fold the top corner of the page to meet the bottom corner.



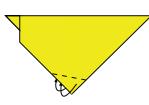
5. One at a time, fold the bottom corners inwards along the bottom line.



6. Tilt the chick's beak up and its tail down. Open your chick up slightly so that it can stand. Decorate with an eye on each side.

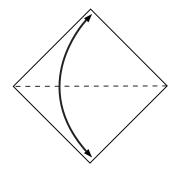


7. Open your chick up slightly so that it can stand. Decorate with an eye on each side.

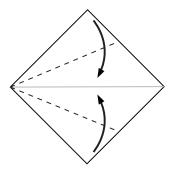


5 & 6, alternate: You can tilt your chick forwards or backwards by changing the angle of the fold in step #5.

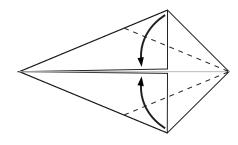
HEN



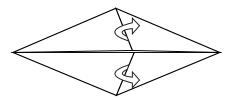
1. Rotate your square piece of paper to be a diamond. Fold the paper in half along the dotted line. Unfold.



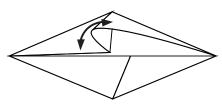
2. Fold both sides of the paper to the center along the dotted lines.



Fold both sides of the paper to the center along the dotted lines to create a flap on each side.

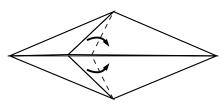


4. Lift up both of the top flaps. Pull up the paper trapped underneath.

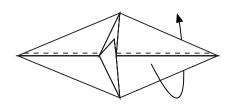


5. Flatten the paper on both sides, working towards the middle. Crease the outside edge of the paper you just lifted up. You will end up with a long, skinny diamond lying flat against your work surface and two triangles standing up. Fold these triangles down. These are two rabbit

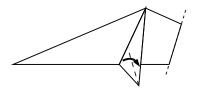
ear folds, which make a fish base.



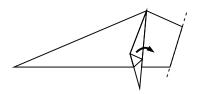
6. Fold the two triangle flaps of paper over along the dotted lines.



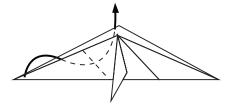
7. Fold the paper in half with the bottom half over behind.



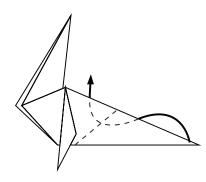
8. This image shows a close up of the right side. Fold the flap of paper over along the dotted line. Flip over your model. Repeat on the side that was behind. Flip your model over again.



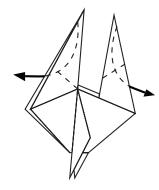
Fold the entire flap of paper over to the right and repeat on the other side.



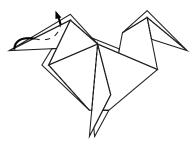
10. Grasp the pointed tip on the left with your left hand. Hold the model in the middle with your right hand. Pull up the left tip. Push the paper all the way inside the model, along the dotted line. Flatten along the creases you already made to form the neck. This is an inside reverse fold.



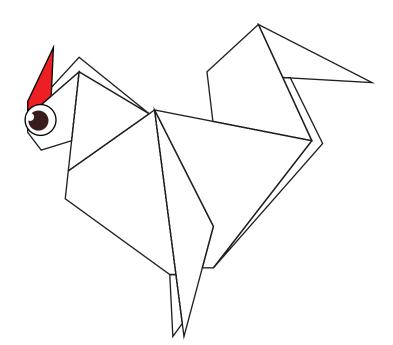
11. Make another inside reverse fold, by grasping the pointed tip on the right with your right hand. Hold the model in the middle with your left hand. Pull up the right tip. Push the paper all the way inside the model, along the dotted line. Flatten along the creases you already made.



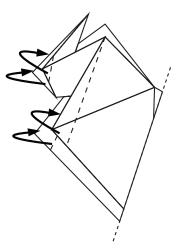
12. Make two more inside reverse folds along the dotted lines.



13. Make one more inside reverse fold up along the dotted line.



15. Finished hen.



14. Fold the paper inside the model along the dotted lines. Repeat on the other side.

Making Connections to the Text

- 7. Read the first three paragraphs of the introduction again. Have you ever kept an animal, or spent time with an animal, whether you owned it or not? Now, fold a piece of paper in thirds to make three columns. If the animal(s) had a name, write it down in the first column. The animal doesn't need to be a pet. It could be an animal in the wild, or even an insect you've observed, and you can invent a name for it.
 - In the second column, write down what you do or did with this animal.
 - What did you learn by observing this animal? Add your answers to the third column.

Chapters 6 & 7: Animal Communication and Emotions

- **8.** In this activity, students will discuss ways that animals communicate and compare animal and human communication.
 - a. Review chapter 6, "Animal Language," and chapter 7, "Animal Emotions." The group or class can also watch a video on animal communication, such as one or more of the ones suggested below.

For elementary school and middle school students

"Do Animals Have Language?" (4:54), TED Ed presentation by Michele Bishop https://www.youtube.com/watch?v=_1FY5kL_zXU

"Natural Communication" (14:46), from NatureWorks and New Hampshire PBS

https://video.nhpbs.org/video/natureworks-natural-communication/

"Do Animals Have Feelings?" (4:29), from BBC Earth Unplugged https://www.youtube.com/watch?v=9UZizRoQPic

For high school students

"What Are Animals Thinking and Feeling?" (19:26), TED presentation by Carl Safina https://www.youtube.com/watch?v=y9KeyKVuLHU

b. As a class, in small groups, or individually, list the different ways that animals communicate. You can use the chart below, make your own chart, or use another writing technique such as mind mapping.

Ways That Animals Communicate

1. List the different ways that animals communicate.

Body language	Making sounds with their bodies	Changing color	
Vocalizing	Using smells	Using touch	

2.	How many of these different ways of communicating do humans use?					
	Compare how animals and humans use two or three of the ways listed above.					

3. How do animals say...?
List five animals and the forms of communication they use to convey the following messages (or add your own message).

Animal name	"Stay away"	"I'm scared	"I love you"	"Here I am"	"You belong to me"	"I'm hungry / I'm thirsty"
1.						
2.						
3.						
4.						
5.						

Chapter 1:

Animal Homes (Making Connections to the Text)

- In this activity, students will practice their research and writing skills to find out more about animal homes.
 - a. Read chapter 1, "Where Animals Live." Pick one of the animals mentioned in the chapter, or choose another wild animal—either one you know or one you'd like to know more about.
 - b. Using an encyclopedia, book, the internet, or any other resources you have, find some information about where your animal lives and what kind of home(s) they have. A home can be anywhere your animal lives. It doesn't have to be a nest or burrow or cave. Here are some questions that can help guide your research:
 - i) Does your animal live in the same home year-round? If not, do they live in a home only during certain seasons, or during certain phases of their lives?
 - ii) Does your animal make their own home? If they do, what materials do they use? If they don't, how do they get a home?
 - iii) How does your animal use its home? How does its home help it to survive?
 - c. You need to describe to an alien visitor what your animal's home is like so they will know where to find your animal. Write one or two descriptive paragraphs. Try to use all your five senses to describe your animal's home to the alien.
 - **d.** What would it be like to live in your animal's house? Would you want to live where they do? Give a reason for your answer.
 - e. Draw or collage a picture of your animal's home.
 - **f.** Your final presentation can be on paper, a PowerPoint presentation, or an oral presentation.

Variation: Depending on where you live, this activity could be adapted to take place outdoors. Students can observe what kind of animals live in their playground, local park, or wilderness area. This website has some ideas about taking classes outdoors: https://outdoorclassroomday.com/.

AFTER READING

These activities inspire continued reflection and response to the text, bring conclusion to reading this particular text, and stimulate further discussions.

A New Way to Look at Animals

10. After you have read *Do You Know Where the Animals Live?*, think back to what you knew about animals before you read the book. What do you know about animals now that you didn't know before? How will you think about animals differently now? Share your reflections with a partner.

Attracting Animals

11. Based on what you have read, list things you could do to attract more animals where you live. It could be as simple as a bird feeder on a deck or as complicated as building a bug hotel—or be creative and come up with your own idea.