

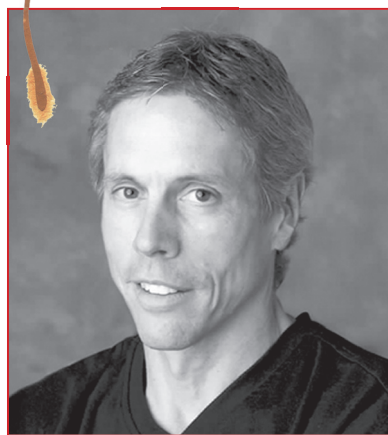


Steve Jenkins

Science Is Fun!

A cross-curricular guide to books by Steve Jenkins

by Zoë Ryder White



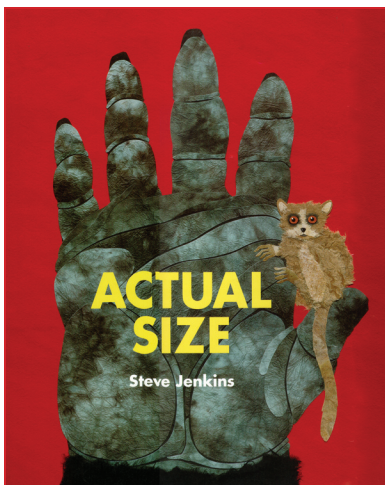
Author Overview

Steve Jenkins's vivid and accurate cut-paper collage illustrations of the natural world will captivate readers of all ages. Jenkins's books, both his solo endeavors and his collaborations with others, do far more than provide a typical nonfiction overview of a certain animal or place. They have breadth and depth, examining an idea through multiple lenses: siblings in the animal world, for example, or creatures' many adaptations for swimming or moving. Jenkins is interested in the world's quirks and oddities, in exploring the myriad ingenious solutions to the challenges of being a living thing. His books stimulate young scientists' curiosity, provide them with clear and easy-to-absorb information, and present a positive and joyful view of Earth's multiplicity. One feels that Jenkins is as excited as his readers will be—he is right there with them exclaiming, "Can you believe this!?" every step of the way.

Classroom Activities Using Steve Jenkins's Books

Actual Size

This gorgeous book depicts animals alive today at their actual size—from the minute to the massive. Rulers (both standard and metric) are included on the cover's flyleaves. Both lower and upper grade children will enjoy this book.



Activity Ideas:

- ♦ A LESSON: What animals are smaller than the palm of a child's hand? (K–2)

Materials Needed: Actual Size, drawing paper and drawing materials of your choice, a selection of other nonfiction books with pictures of animals.

Setup: Gather your students together in a central meeting place to read Actual Size. Ask them to pay particular

attention to animals that are very small.

Introduction: Tell your student that they will be researching and making pictures of animals that are small enough to fit inside their own hands. They could be insects, birds, mammals, amphibians, or reptiles—so long as they are small! Tell your students that they'll first be looking through the baskets of nonfiction books on their tables to find examples of animals that would fit in the palms of their own hands. Then, they'll be tracing their hands on drawing paper and drawing that animal inside. After adding color and a label (and if you choose, a brief description of the animal), they'll be coming back together to share.

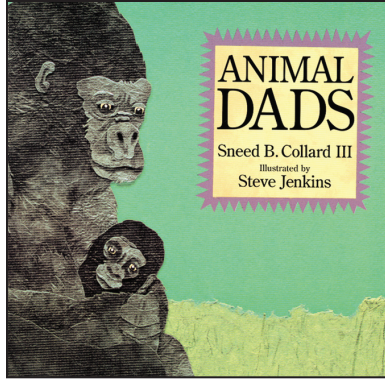
Work Time: Send your students off to tables to look at the books. After ten minutes or so, make sure that all have chosen an animal to draw. Give them drawing paper and drawing materials and let them get started!

Share: When students have finished (this may require two work periods) gather your students together in a circle and ask them to share their little animals.

Animal Dads

By Sneed B. Collard III;
Illustrated by
Steve Jenkins

This important book describes the role of dads in the animal kingdom—the various ways animal fathers create shelters, take care of babies, protect their families, and play with youngsters.



Activity Ideas:

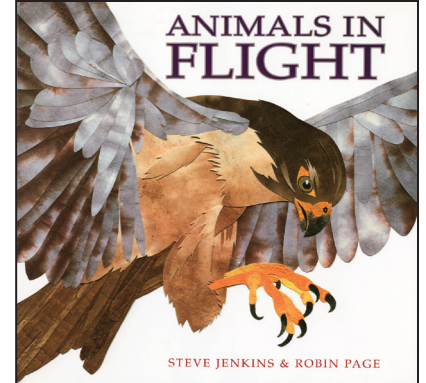
- ♦ (2–5) Ask children to think about how their own fathers or other important males in their lives take care of them, and to write an essay or a poem about that person.
- ♦ (2–5) Ask children to write a fiction story about an animal and its father, making sure to use accurate details about how they might interact.



Animals in Flight

By Steve Jenkins and
Robin Page

Animals in Flight describes how and why animals throughout history have taken to the air—from insects to dinosaurs to birds to bats. An appendix at the end provides more information about each animal described.



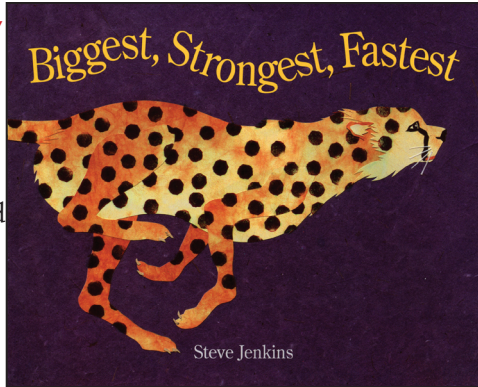
Activity Ideas:

- ♦ (4–5) Ask your students to design their own wings using information gleaned from *Animals in Flight*. Discuss the need for strength and lift and low weight. If you are working with older children, you may even choose to get into the basic physics of flight! Have them draw and write about their wing ideas first, and then challenge them to create models of the wings either on their own at home or in small groups at school.
- ♦ (K–3) What winged animals live in the environment around your school? Go outside with your class and walk around the block. Ask them to write down any winged animals they see, and then compile and discuss their findings when you return to the classroom. If your students are very young, you may want to have done a bit of research and made a check-sheet for them listing various possibilities with a small picture of each. You may want to engage your students, if appropriate, in a discussion of conservation of habitat for the flying creatures near your school!



Biggest, Strongest, Fastest

Biggest, Strongest, Fastest provides a thrilling introduction to "world records" held by animals. Its simple text and succinct, exciting facts will make it particularly appealing to lower grade students, though all will enjoy it.

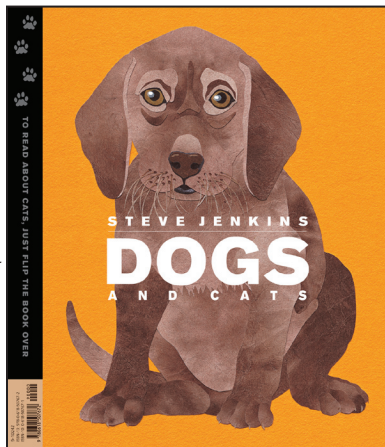


Activity Ideas:

- ♦ (K–2) Play *Biggest, Strongest, Fastest* Charades with your class—have a child choose one of the animals described to act out, and have other children guess what it is.
- ♦ (2–5) Have children research their own interesting animal facts using your classroom's nonfiction collection. Have each student choose an animal fact to write about and illustrate, and then collect the pages into a class animal fact book.

Dogs and Cats

Dogs and Cats is organized as a double book: start on one side and read all about cats, then flip it over and start on the other to read all about dogs. The book is packed with facts about these common and well-loved pets, from habits to instincts to origins and relatives.



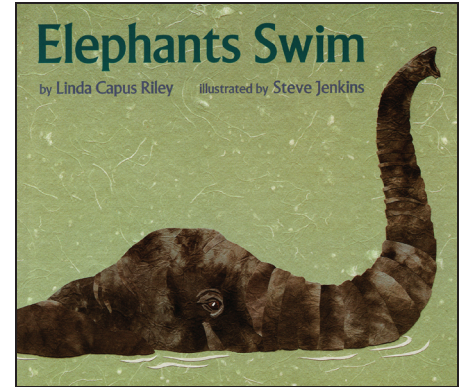
Activity Ideas:

- ♦ (K–3) Visit a local animal shelter or veterinarian's office to see how dogs and cats are cared for.
- ♦ (K–1) Does your class prefer cats or dogs? Take a survey, and make a bar graph together comparing tastes. Discuss how they might interpret the graph's results.

Elephants Swim

By Linda Capus Riley; Illustrated by Steve Jenkins

Elephants Swim is a simple and engaging rhyming book about the many ways different animals behave in the water. While all children will enjoy it, its clear and streamlined text make it perfect for the very young.



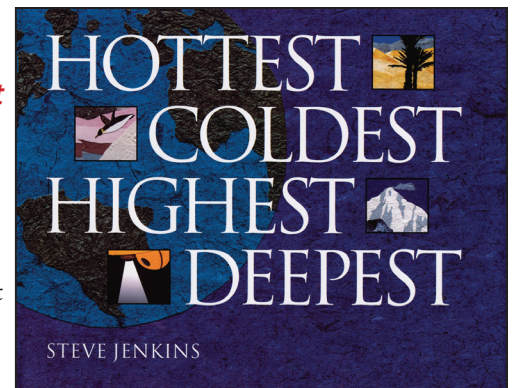
Activity Ideas:

- ♦ (K–2) At the end of the book, the authors ask a question about how readers enjoy spending time in the water. Have your students answer the question, in the form of either a written explanation or a picture.
- ♦ (K–3) In what other ways do animals use water? We know they swim in it, but animals need water for many other reasons as well. Discuss the importance of water with your class. You may even want to discuss the importance of water conservation!

Hottest, Coldest, Highest, Deepest

This book is a remarkable description of scale and perspective in the natural world. It reads like a journey through these exciting areas on

Earth. In addition to the beautiful cut-paper collage illustrations, inset fact boxes and maps add details and information.



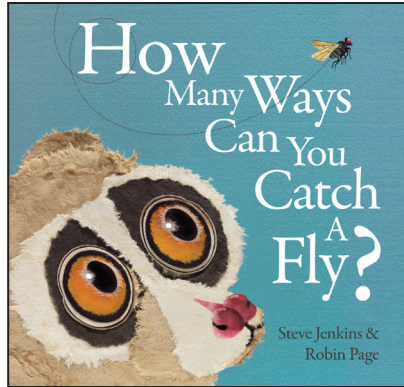
Activity Ideas:

- ♦ (2–5) Ask students which of the places described in the book they would most like to explore. Why? What would they need to do to prepare for conditions they would find there?
- ♦ (2–5) Have students write a fiction story about a journey to one of the places described in the book, making sure to include some factual details about what they would be likely to experience there.

How Many Ways Can You Catch a Fly?

Steve Jenkins and Robin Page

Steve Jenkins and Robin Page's sixth book together describes a host of animals' ingenious solutions to such tasks as catching a fly, hatching an egg, eating a clam, and many more.



Activity Ideas:

- ♦ **A LESSON:** How many ways can you build a paper bridge? (2–5)

Materials Needed: Many sheets of plain paper, tables that can be arranged near each other to create a gap of two feet or so (or you could use two chairs)

Set Up: Gather your students together at a central meeting place to read *How Many Ways Can You Catch a Fly?* Discuss the different solutions animals find to challenges they encounter.

Introduction: Tell your students that you are going to challenge them to invent ways to solve a problem—using only plain paper and no staples or tape, they will work in small groups (four or five children at most) to make a bridge that crosses the distance between the two tables. Encourage them to experiment with different ways to change the paper to make it hold together, and to make a sturdy surface.

Work Time: Send your groups off to work. If it seems like children are getting stuck, have them brainstorm different ways to change the paper—they might tear it, braid it, twist it, fold it into tabs, etc. Remind them that tape and staples are out of bounds! Give them a time limit that seems reasonable for your class.

Share: When the time is up, call children back to the rug to discuss what was challenging about solving the bridge problem, and what was challenging about communicating in a small group. Send children off to look at all of the groups' efforts for a few moments, and then call them back to the rug to discuss the different ways children discovered to create their bridges. Draw a parallel between the many bridge solutions they are likely to invent and the many ways animals solve problems they encounter.

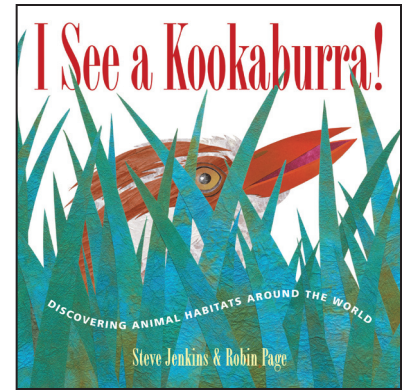
- ♦ (2–5) Learn about biodiversity! If possible find a museum in your area that has exhibits exploring biodiversity, or simply

explore the topic in the classroom through reading more nonfiction books about it. You may also want to take a field trip to a local park to look at diversity of species in your own backyard!

I See a Kookaburra!

Steve Jenkins and Robin Page

I See a Kookaburra! describes how animals develop different ways of surviving various climates and environments. We journey through six different habitats, first searching for animals hidden in the pictures, and then learning about each animal as it is revealed and explained on the next page. Another special feature is the ant (whose relatives live in almost every habitat on Earth!) hidden on every page—can you find it?

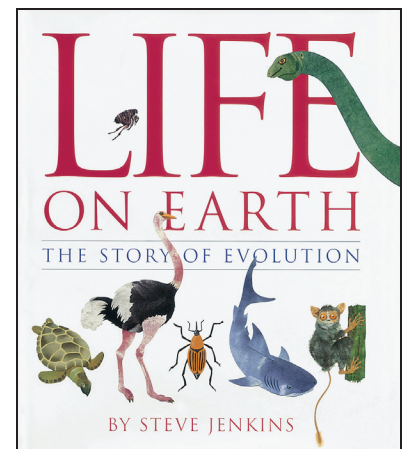


Activity Ideas:

- ♦ (2–5) Ask your students to choose a habitat to research. As a culminating project, have them make a “hidden animals” picture like Steve Jenkins did. They may trade with friends and try to spy the animals hidden in each habitat.
- ♦ (K–2) Do an ant study! Why are ants able to live in such different types of environments? You may even want to obtain an ant farm for your classroom so that you can study ants up close.

Life on Earth: The Story of Evolution

Life on Earth begins with a simple and succinct timeline of evolution and then moves into an explanation of Darwin's theory and describes how humans' ideas about when and where life appeared on Earth have changed throughout the years. Natural selection, survival of the fittest, mutation, and variation are explained in kid-friendly terms, with Jenkins's lush and detailed cut-paper



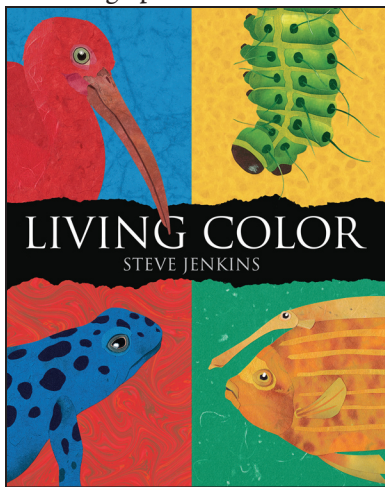
collages.

Activity Ideas:

- (3–5) If your students are studying natural selection, this book is an ideal entryway into learning more about the science behind it—it provides a great complement to any examination of mutation and variation.
- (K–5) Have your students learn about species currently on the endangered list. What is happening in these creatures' environment that makes it difficult or impossible for them to adapt? You may have your students write an essay or, for younger children, draw a picture. You may even want to have your class research and develop a relationship with an organization working with endangered species, or to help raise awareness in your school through posters and letters.

Living Color

Living Color describes how animals' brilliant coloring helps them to survive in various environments and situations. The book is organized by color, with an appendix of animals at the back. It could be used primarily as an engaging way to review color with younger children, or in more sophisticated ways relating to what is behind animals' color with older children.



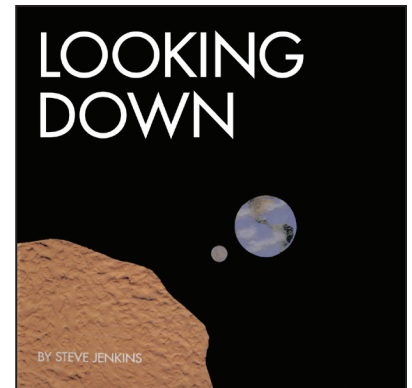
Activity Ideas:

- (K–1) Ask your students to create their own color book about animals. You may ask them to choose just one animal per color to simplify.



Looking Down

Looking Down takes readers on a remarkable journey—it begins with a view of Earth from just beyond the moon and moves closer and closer until we arrive at the bug in the lens of a young scientist in his front yard.

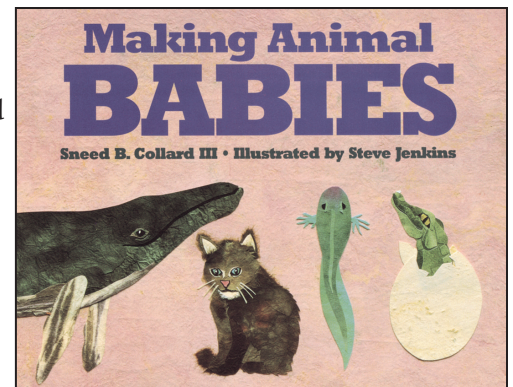


Activity Ideas:

- (3–5) Children will love creating a series of “Looking Down” illustrations that end up in their own towns, in their own yards! Simplify the steps as needed for your class (you may ask for only three or four drawings, for example). Providing your children with maps or aerial photographs of your area can be very helpful, and they will be delighted to see what their neighborhoods look like from above. These kinds of photos are often easily available online. For the last drawing, ask your students to include themselves and another tiny detail, like Steve Jenkins's bug.
- (K–3) This book could fit beautifully into a unit of study on mapping!

Making Animal Babies

By Sneed B. Collard III; Illustrated by Steve Jenkins
Making Animal Babies provides an overview of animal reproduction, both sexual and asexual.



In no-nonsense terms and clear illustrations, Collard and Jenkins simply describe the complex processes involved in the creation of new animal life. This book will work best with upper grade students because of the complexity of the subject matter and vocabulary

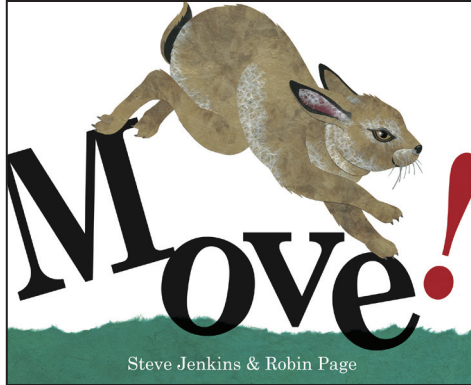
Activity Ideas:

- (3–5) Have your students choose a baby animal in *Making Animal Babies* and write about (or draw a diagram of) its life cycle.

Move!

Steve Jenkins and Robin Page

This beautiful book provides an overview of the many different ways that animals move around, and when and why they move that way. The simple text and charming illustrations will appeal to all children, particular those in the lower grades.



Activity Ideas:

- ♦ (K–2) The book naturally inspires movement. Have your students act out animal movements described in the book, or invent their own! You may even ask them to play animal charades. The child acting chooses an animal and performs its movements, and the other children guess which animal it is. You may want the “guessers” to justify their guess with an explanation—“I think you’re an armadillo because you leaped straight up off of four feet,” for example.

- ♦ **LESSON:** Making a class “Movement” book (K–2)

Materials Needed: the book *Move!*, drawing paper and materials

Setup: Have your students gathered together in a central meeting place and read the book *Move!*. Ask them to pay particular attention to the action words, or verbs, in large bold type.

Introduction: Tell your students that you will be using *Move!* to help create your own movement book. You’ll be making a list together of all of the action words in the book, and then each child will choose a word to include in a sentence, which they will then illustrate. Pages will be gathered together into a class book. *You may choose to limit children’s descriptions to animals, or you may broaden acceptable subject material.

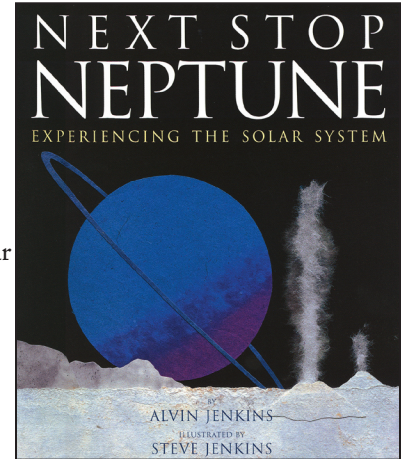
Work Time: After reading through the book and collecting a class list of the action words, ask students to choose a word. (It’s fine if more than one student chooses the same word, so long as most words are represented. You may also elect to have students make up their own movement words.) They will go off to their work seats and write a sentence that uses the word, and then illustrate the sentence.

Share: When students have finished, bring them back to your class meeting place to share their work. You’ll collect the pages into a class book about movement for your classroom library later.

Next Stop Neptune: Experiencing the Solar System

By Alvin Jenkins; Illustrated by Steve Jenkins

Next Stop Neptune works like a physical tour of the solar system. Steve Jenkins and his astronomer father, Alvin, describe how you might feel and what adventures might happen if you visited such places as the storms of Jupiter or the low-gravity asteroid Ceres.

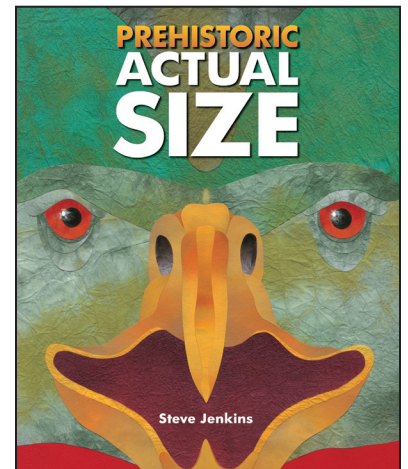


Activity Ideas:

- ♦ (3–5) Each student might choose a planet, moon, or asteroid to research and write a about in a nonfiction essay.
- ♦ (3–5) Each student might choose a planet, moon, or asteroid to research and write an imaginary journey to, including real facts about conditions in the story.

Prehistoric Actual Size

A complement to Jenkins’s *Actual Size*, *Prehistoric Actual Size* reveals animals of the prehistoric world (or parts of them) in actual size—from the minuscule protozoa, to cockroaches the size of a child’s hand, to the forty-five-meter-long gigantosaurus. Information at the back of the book discusses how human have learned so much about these ancient creatures through fossils. The book’s flyleaves contain rulers, both standard and metric.



Activity Ideas:

- ♦ **LESSON:** Painting your own animals, “actual size!” (2–5)

Materials Needed: the book *Prehistoric Actual Size*, large pieces of (or a roll of) paper, pencils and tempera paints, smocks, a selection of nonfiction books with pictures and information about prehistoric animals, rulers, and tape measures.

Setup: Have your students gather together in a central meeting place and read *Prehistoric Actual Size*.

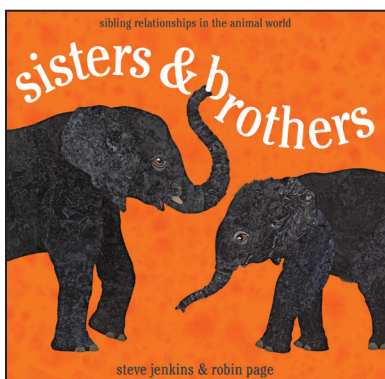
Introduction: Tell your students that you will be using Steve Jenkins's book to help create their own paintings of prehistoric animals at their actual size. They'll have a chance to look through other nonfiction books, including Jenkins's, to choose an animal to paint at actual size, and then to measure, sketch, and paint it. *You may want to have students look at books and make decisions on the rug so that you can create teams to work on large animals, if need be.

Work Time: After students have looked at books and decided what animals they will be painting (and divided into teams if necessary), send them off with tape measures and rulers to first sketch and then paint their creations. This will without doubt take some creative room reorganization—the floor and the hallway can both provide excellent places to work on larger animals. Children choosing very large animals may need to be encouraged to select a part of their animal to paint—just the head, for example.

- ♦ **Display:** You may want to display this prehistoric menagerie in the hallway—it will look very impressive, for example, to see a long diplodocus neck stretching halfway to the cafeteria!

Sisters & Brothers: Sibling Relationships in the Animal World

Steve Jenkins and Robin Page *Sisters & Brothers* describes a wide variety of sibling relationships among animals. As we read we see animals of all types learning together, living together, playing together, working together, and occasionally fighting together—just as human siblings do!



Activity Ideas:

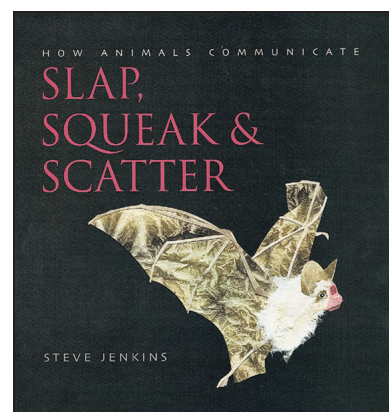
- ♦ (K–5) Ask your students to pick a sibling, a cousin, or a friend (if they have neither sibling nor cousin) and to describe

their relationship in the same terms as Jenkins and Page describe animal sibling relationships. How do your students and their siblings/cousins/friends play together, work together, maybe occasionally fight?

- ♦ (2–5) You may choose to have your students write a poem using similes to describe a sibling relationship, packed with real information gleaned from the book—for example, students might include a different simile in each line—“My brother and I sometimes fight like hyenas,/but sometimes we play like peregrine falcons.”

Slap, Squeak & Scatter: How Animals Communicate

Slap, Squeak & Scatter describes how various animals send messages to each other—warning of danger, locating food, protecting territory, finding a mate, and keeping the family together.



Activity Ideas:

- ♦ (3–5) Assign students to groups and have each group choose an animal. Ask them to create a short skit in which the animals are using their particular style of communication to get messages to each other. You may recommend that students also have a narrator that can translate the animals' conversation for the audience!
- ♦ (K–5) A fun evolution of this project might be to ask students to create their own imaginary animal and describe in detail how and why it communicates.

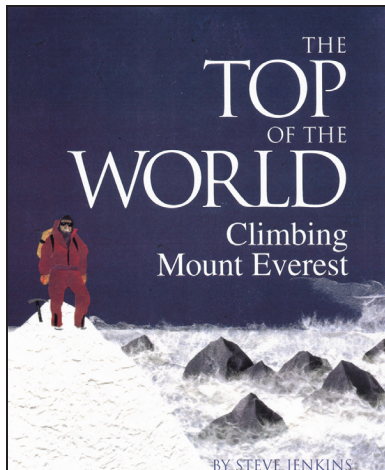


The Top of the World

This breathtaking book explores Mount Everest: its history, geology, climate, and climbing conditions.

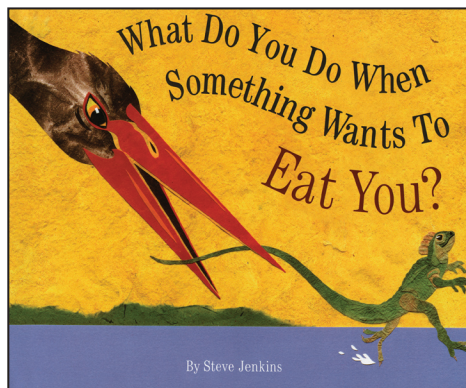
Activity Ideas:

- ♦ (3–5) Ask students to write a narrative about an imaginary journey to the top of Mount Everest, including facts about geology, climate, supplies, symptoms experienced as you reach the summit, and so on.
- ♦ (3–5) You may want to read excerpts of some of the wonderful firsthand accounts of climbing Everest to your students.



What Do You Do When Something Wants to Eat You?

This book describes how animals everywhere use different tricks of the trade to protect themselves from danger—the octopus squirts ink, the glass snake breaks into pieces, the clown fish hides in the poisonous tentacles of an anemone—and many more!



Activity Ideas:

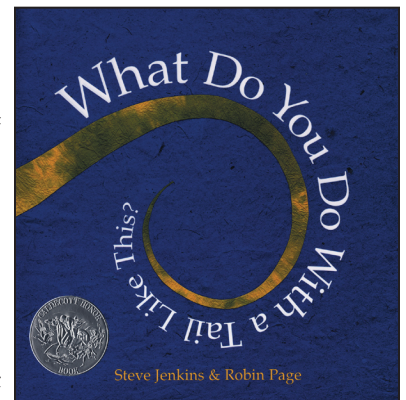
- ♦ (2–5) Have your students answer the book's ultimate question: "What would you do if something wanted to eat you?" How have humans adapted to dangerous situations? What tools have we created? How would humans fare in the wild without our tools?



What Do You Do with a Tail Like This?

Steve Jenkins and Robin Page

This gorgeous Caldecott Honor book is set up like a guessing game—one page displays only the interesting parts of a group of animals, encouraging readers to guess not only what animal the part belongs to but also what they might do with these uniquely designed tails, ears, eyes, noses, and feet.



Activity Ideas:

- ♦ **LESSON:** What do you do with a ? like this? (K–2)

Materials Needed: The book *What Do You Do with a Tail Like This?*, drawing paper, and drawing materials of your choice.

Setup: Gather your students together at a central meeting place and read *What Do You Do with a Tail Like This?*

Introduction: Tell your students that they will be choosing an animal and making pictures that they'll use to play a guessing game much like the game Steve Jenkins sets up in his book. On their first piece of paper, they will draw just the part of the animal they'd like guessers to focus on. On the second page, they'll draw the whole animal. You may want to ask children to make their animal choices and decide what part they'll feature before they go off to work so that you can help them to make a feasible choice. Make sure to encourage them to put in as much detail as they can, just like Steve Jenkins does.

Work Time: Send your students off to draw their animal parts, and then their animals. You may need more than one period for this project.

Later: When all of your students have finished both drawings, staple the two pages together with the partial animal in front. Have students trade and guess what the animal is, and what purpose the part serves!

- ♦ (3–5) Ask your students to design an imaginary "adaptation" for an animal (either real or imaginary) that performs a specific task. What about bears that have special built-in pouches for storing pieces of honeycomb? Or a little mammal equipped with springlike legs that can bounce up into tree branches when a predator comes near?