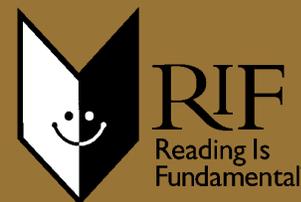


READING IS FUNDAMENTAL® STORY SAMPLER

Science Discoveries



FOR CHILDREN IN KINDERGARTEN - GRADE 3



What Is a Story Sampler?

A Story Sampler makes books come alive for a young child. It is a book-based, thematic approach to reading designed to engage children in the book experience. Each Story Sampler enhances books with hands-on, cross-curricular activities that are linked by a common theme.

Why Use a Story Sampler?

You should use a Story Sampler if you are looking for:

- Activity ideas to enhance your children's reading experiences.
- A quick and easy resource that will provide fun activity ideas to integrate into your program's reading time.
- New ways to expand children's reading time to include parents and community.

The ideas provided within each Story Sampler offer ways to expand book experiences for the children you serve. Motivational activities are an important part of every Reading Is Fundamental program because they stimulate children's interest in reading and help them associate books and reading with positive experiences and fun. Use the Story Sampler to explore a book's message, to demonstrate that books are extensions of real life, and to provide tie-ins that connect parents to the activities you are doing with their children.

The ideas included in Story Samplers can forge relationships and shared experiences within the family and the community. Scores of studies show that students learn more and do better in school when their parents are involved in their education. Different types of hands-on activities enable all children to learn in different ways. And questions posed before, during, and after read-aloud activities can develop high-order thinking skills. Story Samplers were created to integrate these elements into an easy and fun format for you to use with your children.

What Are the Standard Elements in a Story Sampler?

Each Story Sampler addresses a particular theme that unifies a collection of popular children's books. Each section within the Sampler includes featured book titles, authors, and resources. The activities that accompany each topic are divided into sections that expand the child's experience reading the book.

The standard elements in every Story Sampler include:

- Questions to promote interaction with the text.
- Activities that extend the learning within the book.
- Ideas to involve family members in book-related activities.
- Ways to connect a child's community with themes presented in the stories.

Who Should Use a Story Sampler and Where?

Story Samplers cover a variety of topics and age groups. Story Samplers are designed for:

- Caregivers seeking to cultivate a literacy-rich environment for the youngsters in their care.
- Busy teachers looking for new ideas with which to expand classroom lessons.
- Parents hoping to increase their children's contact with books and associated activities.
- Any adult wishing to integrate children's books into larger lessons.

When and How Should I Use a Story Sampler?

The Story Sampler can be used in its entirety or in sections that apply to the learning objectives you hope to achieve. Use the activities in a Story Sampler when they enhance the work you are already doing, as a supplement to a curriculum, or as a way to encourage reading at home.

Family members can encourage children to become lifelong readers by reading aloud with them every day. The featured titles are intended to be read aloud to promote greater interaction between children, parents, and the books they share. Reading aloud to children is one of the most effective ways to support their language and literacy development. When you invite children to participate in the reading, ask open-ended questions that promote creative thinking and learning, and plan activities that allow children to expand their understanding of the story, you help them develop a love of reading.

Books can explain and reinforce concepts, allow children to build positive self-images, stimulate discussions and thinking, and expand children's imaginations. Use the Story Samplers to help you to achieve these goals.

Only you and your program can determine the best way to use the Story Sampler. Every way is correct as long as you are bringing more reading exposure and book fun to children. Enjoy!

Tips for Reading Aloud

Before You Read a Story...

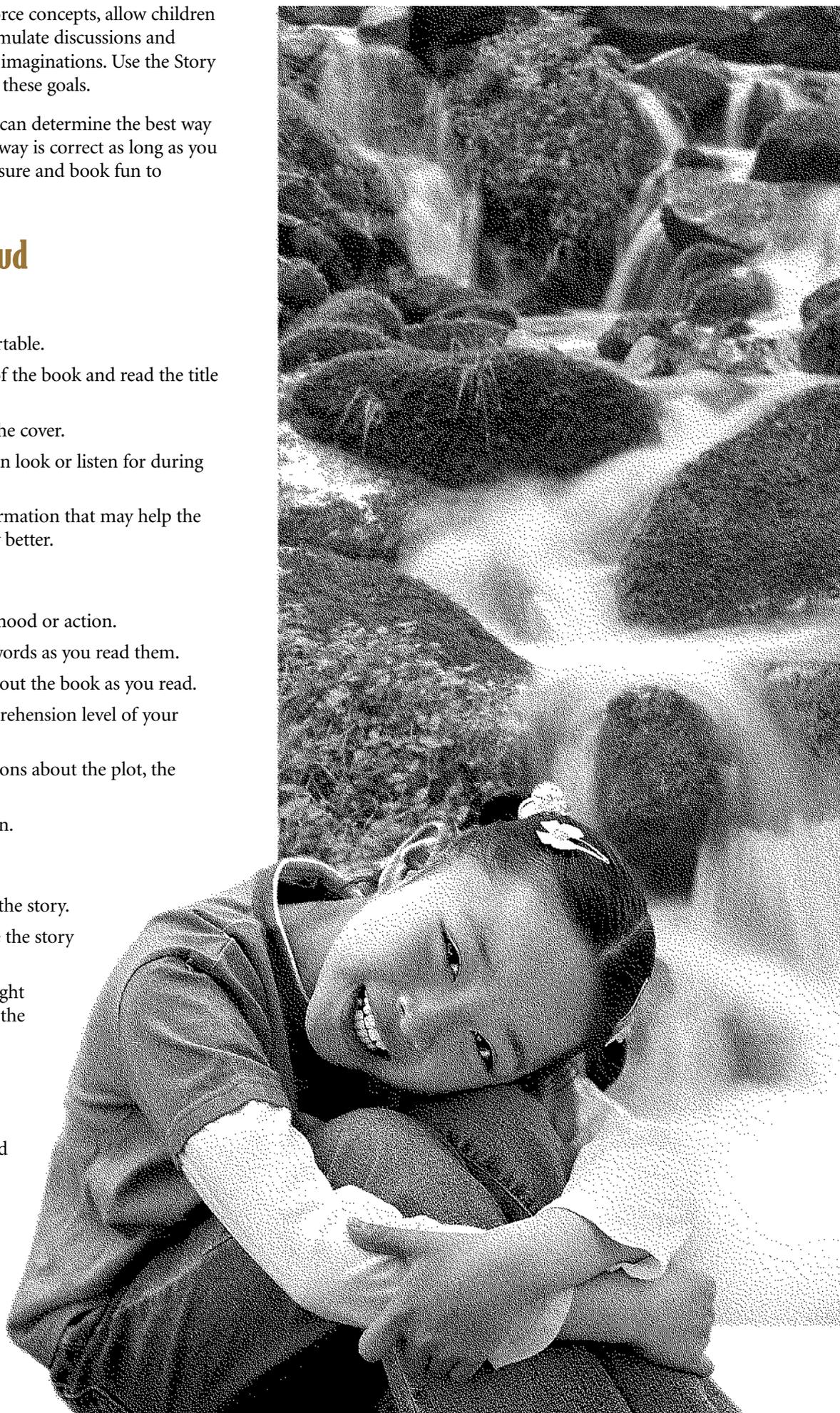
- Make sure everyone is comfortable.
- Show the children the cover of the book and read the title and author's name.
- Ask the children to describe the cover.
- Suggest things the children can look or listen for during the story.
- Provide any background information that may help the children understand the story better.

During a Story...

- Change your voice to fit the mood or action.
- Move your finger under the words as you read them.
- Show the pictures and talk about the book as you read.
- Adapt the text to fit the comprehension level of your audience.
- Ask children to make predictions about the plot, the characters, and the setting.
- Follow the cues of the children.

After You Read a Story...

- Ask about what happened in the story.
- Encourage the group to relate the story to their own experiences.
- Ask the children how they might feel or act if they were one of the characters.
- Invite children to share their thoughts about the story and pictures.
- Extend the story with a related activity found in the Story Sampler, or read another book.





Science Discoveries

A STORY SAMPLER
FOR CHILDREN IN
KINDERGARTEN – GRADE 3

- ▶ **Life Cycle 4**
- ▶ **Creature Comparisons 6**
- ▶ **Backyard and Beyond 8**
- ▶ **Environment Investigator 10**
- ▶ **Nature's Wonders 12**
- ▶ **Agriculture Adventure 14**
- ▶ **Science on the Web 16**

Life Cycle

Discover how each species has its own cycle from birth until death.

BOOK SUGGESTIONS

Baby Whale's Journey

by Jonathan London, illustrated by Jon Van Zyle
Chronicle Books, 1999

A baby whale is born and must learn about life as he grows and becomes independent.

Old Coyote

by Nancy Wood, illustrated by Max Grafé
Candlewick, 2004

Coyote reflects on his long life as he slips closer to the end of his days.

Tigress

by Nick Dowson, illustrated by Jane Chapman
Candlewick, 2004

Mother Tiger raises her two cubs and shares information along the way about how tigers live and survive.

Mister Seahorse

by Eric Carle
Philomel, 2004

Mr. Seahorse and other underwater animals care for their young and show how they survive in the deep sea.

Waiting for Wings

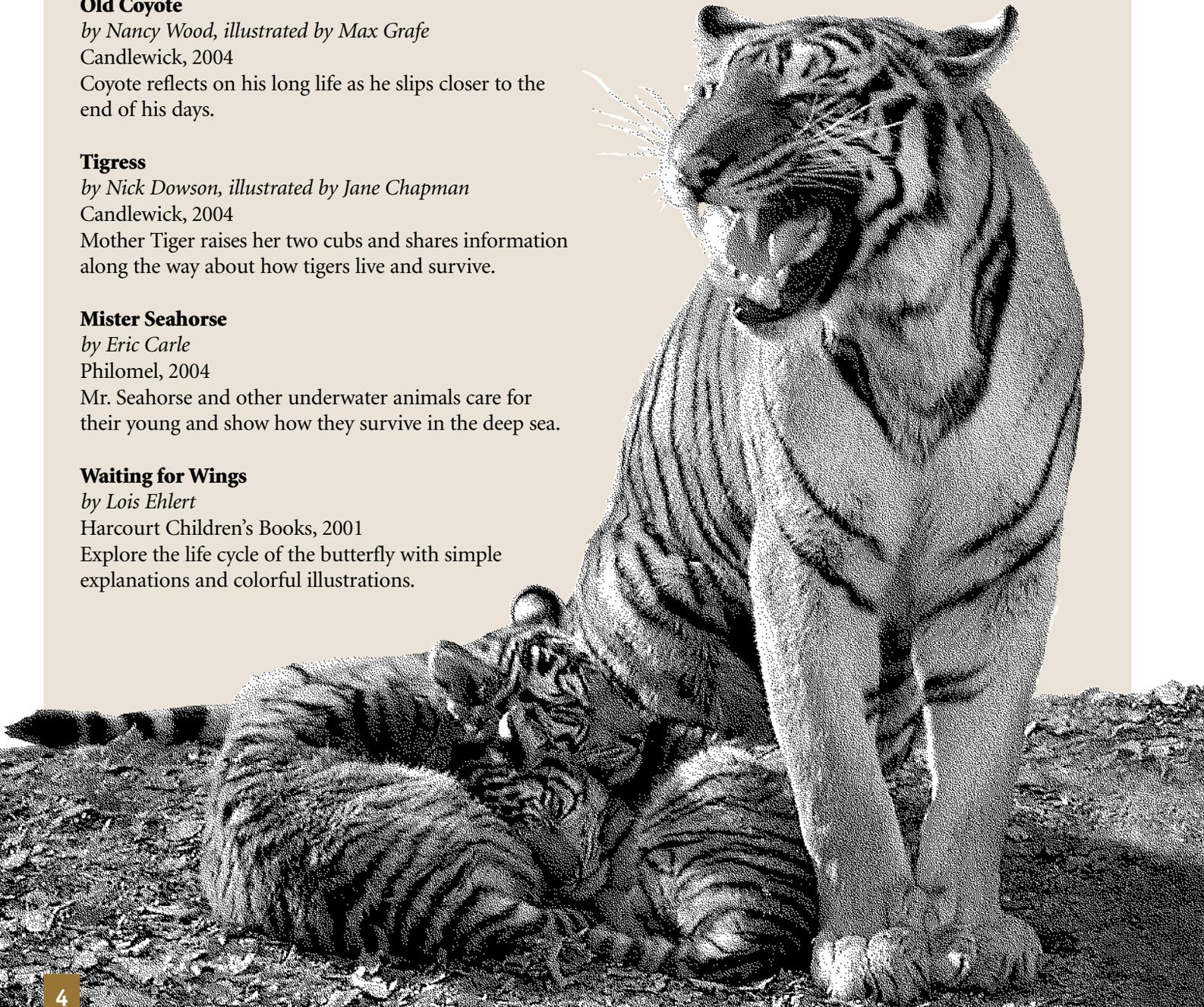
by Lois Ehlert
Harcourt Children's Books, 2001

Explore the life cycle of the butterfly with simple explanations and colorful illustrations.

The Emperor Lays an Egg

by Brenda Z. Guiberson, illustrated by Joan Paley
Henry Holt and Co., 2001

In this team approach to childrearing, both mother and father penguins work together to care for their young.



What to Do Before Reading the Story

- Show pictures of baby animals and ask children to speculate about whether the animals were born from their mothers or hatched from eggs. Pictures of many different animals can be found at www.gotpetsonline.com/pictures/gallery.
- Display the cover. Talk about what animal is being featured in the story and ask children what they think about it.
- Talk about the cycle of life and how every species goes through stages from birth to adulthood. What are the different stages for humans?

Things to Talk about During the Story

- Draw attention to sections describing the various stages of development.
- Make comparisons with people. Do humans parent the same way as animals?
- What challenges do different species face? Ask children to imagine facing the same challenges.

What You Can Do When You Finish Reading the Story

- Thanks to technology, you no longer need to have a zoo in your area to watch baby animals and their parents interact. Many zoos now offer free webcam views of animals in their natural habitats. Visit websites such as www.nationalzoo.si.edu and www.sandiegozoo.org to observe how the animals interact.
- What is the difference between various animal babies and adults? Have children find examples using encyclopedias or the Internet. Ask them to make a chart comparing their different characteristics, such as their appearance, size, and physical abilities.
- What does it mean to be endangered? The National Wildlife Federation (www.nwf.org/angered) features information about why endangered species are important and how to protect them.

Family Involvement

- Encourage families to pull out their photo albums and look at baby pictures of various family members. What similarities do they share as babies? Have these changed as they have gotten older?
- Ask children to ask their older relatives about the things they liked doing in their younger days. How has growing older changed their interests?



- Families can have fun by matching adult and baby names such as horse and colt, dog and puppy, and alligator and hatchling. If they get stumped, they can find a list of animals and corresponding baby names at www.enchantedlearning.com/subjects/animals/animalbabies.shtml, in an encyclopedia, or in the book *A Pinky Is a Baby Mouse* (Hyperion Books for Children, 1997) by Pam Muñoz Ryan.

Community Connection

- Take a trip to a local farm or zoo, keeping in mind that spring is the best time to see baby animals. Ask the farmer or zookeeper to talk about different life stages of the various animals.
- Many areas have local rescue agencies, such as the Humane Society or the ASPCA. Have children investigate what rescue agencies are in their area and what support they need. Ask children to design a campaign to educate the public about the agency.
- Take children on a nature walk and tell them to look for animals such as birds, rodents, or reptiles. Ask them to find out the life span of those creatures and report their findings to the group.

Creature Comparisons

Take a new look at the world's creatures and ponder how their different characteristics help them survive.

BOOK SUGGESTIONS

Actual Size

by Steve Jenkins

Houghton Mifflin, 2004

How do different animals measure up? Creative illustrations compare the sizes of different animals.

One Is a Snail, Ten Is a Crab

by April Pulley Sayre and Jeff Sayre, illustrated by Randy Cecil

Candlewick, 2003

In this creative approach to counting, the authors count the number of feet animals have.

What Do You Do with a Tail Like This?

by Steve Jenkins and Robin Page

Houghton Mifflin, 2003

This Caldecott Honor book explains various animals' bodies and how they work.

If You Hopped Like a Frog

by David M. Schwartz, illustrated by James Warhola

Scholastic Press, 1999

Humans and animals differ on many fronts. What if we were able to do some of the things animals can do? The comparisons and illustrations provide some hilarious possibilities.

insectlopedia

by Douglas Florian

Harcourt Children's Books, 1998

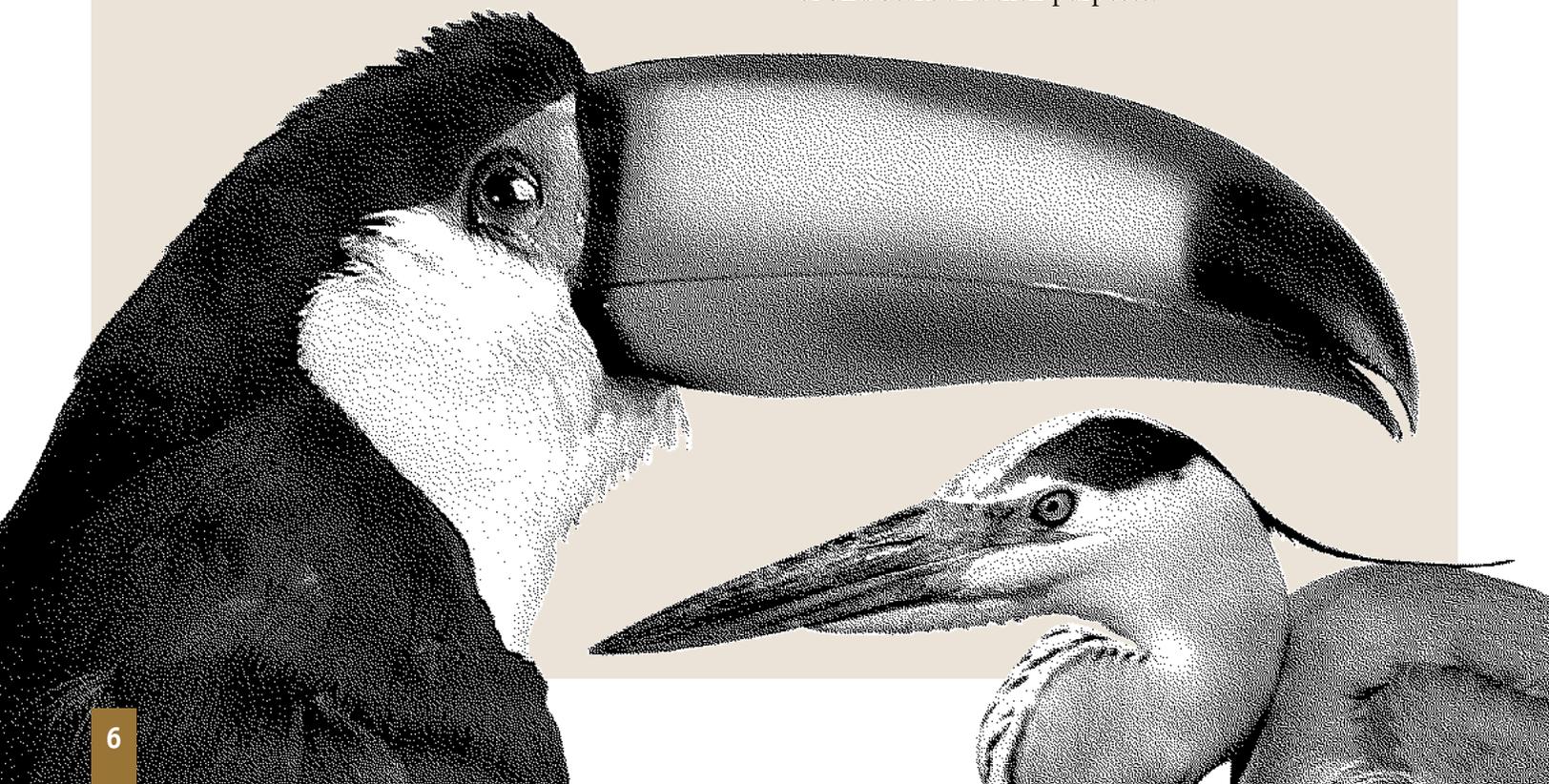
Poetry brings us closer to understanding creepy crawly creatures.

Beaks!

by Sneed B. Collard III, illustrated by Robin Brickman

Charlesbridge Publishing, 2002

Elaborate cut-paper illustrations enhance descriptions of bird beaks and their purposes.



What to Do Before Reading the Story

- Display the cover. Tell children that this book will help them compare animals. What animals do they think might be discussed? Write their guesses on a board.
- Select two different animals and ask children to compare them. For instance, a giraffe is taller than a dog, or a giraffe has more spots than a dog. For younger children, ask them to make comparisons using descriptions you provide, such as: Is the mouse bigger or smaller than the ant?
- Show different animal tracks and have kids guess which animals they belong to. Sample animal tracks can be found on many websites, including www.bear-tracker.com/mammals.html.

Things to Talk about During the Story

- Ask children whether they have ever seen the animal described in the text.
- For each animal being described, ask children to discuss it using the illustration or their own prior knowledge.
- Keep a list of unfamiliar animals. Invite children to learn more by looking them up in the encyclopedia, in other books, or online.

What You Can Do When You Finish Reading the Story

- Encourage children to find out more about the animals. Have them research habitats, endangered status, and animals' unique characteristics. The website www.enature.com offers information about many different species and has a feature that allows children to find local species by entering their zip code. Have children design posters that feature an animal and a few fun facts about it.
- Have the group select an animal. Ask children to think of questions they might ask that animal if it were to come visit. For example, what is your favorite thing to eat? Ask one child to play the role of the animal and answer the other children's questions. Encourage children to be creative with their responses, but also think about what they know about the animal.
- Choose a few animals mentioned in your reading and divide children into groups. Give each group an animal and ask group members to design that creature's habitat if it were in a zoo. What might that animal need to be happy?
- Talk about the different types of animal skin. Bring in samples of skins and fur or look at pictures and discuss how each helps animals survive in different climates and habitats.

Family Involvement

- Habitat is the environment where animals live. Have children work with their families to describe their own "habitats."
- Invite families to think about the special strengths that different animals have. For instance, a beetle has a strong exoskeleton, a cat can see well in the dark, and a mouse can fit into tiny holes. What animal superpowers would each family member want to have? Ask them to share with each other.
- All dogs are part of the same species, even though they come in many shapes and sizes. Ask families to look at the dogs in their neighborhood and make comparisons. Ask them to talk about how different characteristics allow dogs to have different talents.

Community Connection

- What animals are kept as pets in your community? Have children poll their neighbors to see how many and what kinds of animals they keep at home.
- Go on a nature walk around your community. Ask children to be careful observers of nature and keep a record of all the animals they see.
- Host a community pet show. Ask families to bring their pets to celebrate how different animals enhance our lives.



Backyard and Beyond

Backyards are filled with things to discover, such as plants, animals, and rocks. Beyond the backyard, there are many things to see and explore.

BOOK SUGGESTIONS

If You Find a Rock

by Peggy Christian, photographs by Barbara Hirsch Lember

Harcourt Children's Books, 2000

Illustrated with hand-tinted black and white photographs, this book will resonate with anyone who has ever bent down to pick up a rock.

The Beetle Alphabet Book

by Jerry Pallotta, illustrated by David Biedrzycki

Charlesbridge Publishing, 2004

Beetles of every size and shape share what makes them special.

Backyard Detective: Critters Up Close

by Nic Bishop

Tangerine Press, 2002

Kids only need to visit their backyards to encounter all kinds of discoveries. Life-sized photos show details to help teach and intrigue.

What's Up, What's Down?

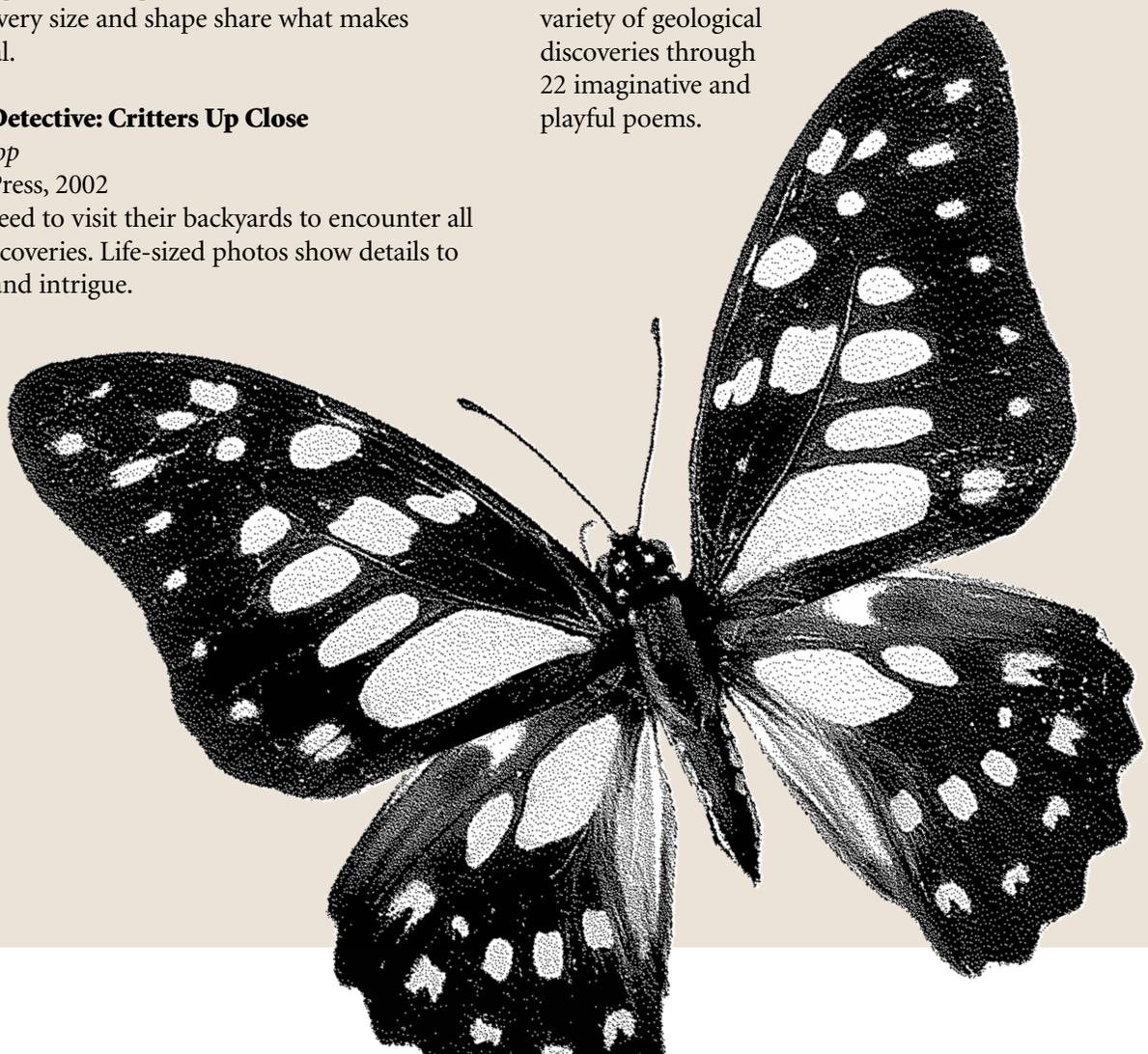
by Lola M. Schaefer, illustrated by Barbara Bash
Greenwillow, 2002

Turn the book one way and you are looking up from one animal's point of view; turn it around and you are looking down from another's.

Earthshake: Poems from the Ground Up

by Lisa Westberg Peters, illustrated by Cathie Felstead
Greenwillow, 2003

Readers are introduced to a variety of geological discoveries through 22 imaginative and playful poems.



What to Do Before Reading the Story

- Have children make a list of things they might find in a yard. Circle the items on the list that are manmade and those that are natural.
- Gather objects from nature and have children take turns looking at them (through a magnifying glass, if possible), holding them, and describing them. Write down the adjectives children use to describe what they see.
- Have children draw a quick picture of their favorite outdoor place. Ask them to circle the plants, animals, and rocks in their picture.

Things to Talk about During the Story

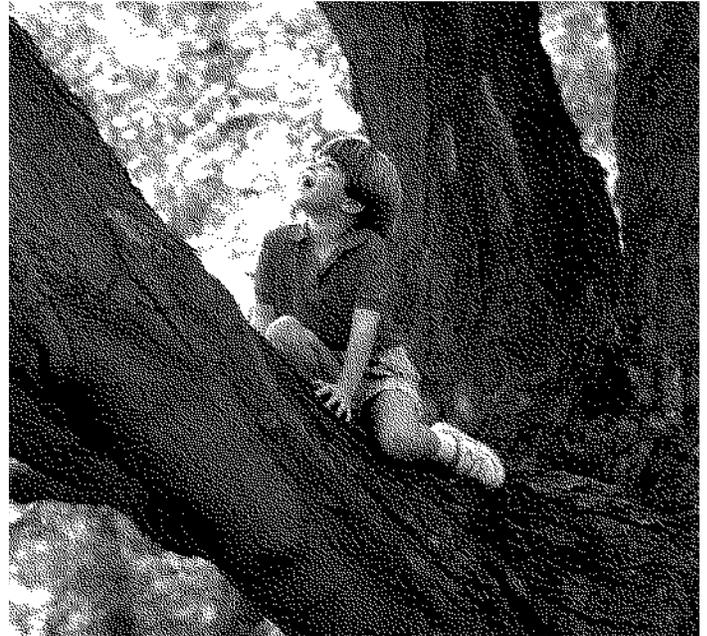
- Point out items from the book which are indigenous to your area. Talk about how your local environment helps certain plants and animals thrive.
- Many of the illustrations featured in these books are very detailed. Pause to allow each child to take in all of the details. Comment on children's observations.
- If possible, give children objects mentioned in the story to look at or hold while you are reading. This may help them to compare the description with the object.

What You Can Do When You Finish Reading the Story

- Have kids get down on the level of an insect or small animal. Have them imagine that the animal is trapped inside the room or their home. How might they escape?
- Japanese haiku poetry usually describes things found in nature. Find examples of haiku poetry (or write your own) and the items they describe. Have children look at the items while you read the poems aloud. If children are able, have them try to write their own haiku poetry. You can find examples of haiku in the book *If Not for the Cat* (HarperCollins, 2004) by Jack Prelutsky or online at www.kidzone.ws/poetry/haiku.htm.
- Artists such as Georgia O'Keeffe became famous by looking closely at natural objects and then drawing them. Bring in some objects from nature and encourage children to look closely at the parts and to draw them. Explain that we often look at the whole object, but sometimes the pieces are more interesting and intricate than the whole. For another view, check out bugscope.beckman.uiuc.edu where children can view insects magnified to extremes.
- Have them explore why bugs and insects are important to our planet. The website www.uky.edu/Ag/Entomology/ythfacts/entyouth.htm has information about how bugs are important to our world.

Family Involvement

- Tell families to take a hike in the woods, the park, or just around their neighborhood. They can go for a walk together anytime—rain or shine—and note the different things they see. Take along an empty shoebox, tissue box, or plastic soap dish for kids to collect leaves, flowers, or other interesting objects along the way.
- When studying the Earth, scientists often take a core sample by drilling into the ground to see the different layers beneath the surface. The next time parents and children are eating sandwiches together, take a core sample by pushing a plastic straw through the sandwich. Look at and identify each different layer and relate this to the layers of the Earth.



Community Connection

- Ask an ecologist or environmentalist to come talk about his or her work and the role that each of us has in taking care of the planet.
- When people litter, it not only makes the environment dirty, it also affects animal habitats. Check out the website www.litterproject.com for tips about how to organize a litter cleanup day. Whether you choose to clean up the schoolyard or a local natural area, it will help the community remember the importance of keeping the environment clean.
- What happens to trash when you throw it away? Ask a representative from the local waste disposal plant to come and talk to kids about what the trucks do when they haul the trash away.
- Rocks and minerals are used in many different ways in the community. Go on a scavenger hunt around your community to see how stones, metals, and other materials are used to build and beautify.

Environment Investigator

What is it like to look at the world through the eyes of an investigator or scientist? These books feature people who dedicate their lives to studying the natural world.

BOOK SUGGESTIONS

Rocks in His Head

by Carol Otis Hurst, illustrated by James Stevenson
Greenwillow, 2001

The author affectionately shares the story of her father, whose fondness for rocks is often mocked but leads him to become a museum curator of mineralogy.

Rare Treasure: Mary Anning and Her Remarkable Discoveries

by Don Brown
Houghton Mifflin, 1999

Over 200 years ago, Mary Anning's passion for archaeology led to her incredible discoveries in paleontology.

The Dinosaurs of Waterhouse Hawkins

by Barbara Kerley, illustrated by Brian Selznick
Scholastic Press, 2001

Children today might know what a brachiosaurus and a pterodactyl looked like, but there was a time when no one thought to imagine how these massive fossils looked. Waterhouse Hawkins combined his artistic talent and his fascination with paleontology to imagine what dinosaurs really looked like.

Snowflake Bentley

by Jacqueline Briggs Martin, illustrated by Mary Azarian
Houghton Mifflin, 1998

This Caldecott Medal winner features the life of Wilson Bentley, the first person to study and photograph snowflakes.

Eliza and the Dragonfly

by Susie Caldwell Rinehart, illustrated by Anisa Claire Hovemann

Dawn Publications, 2004

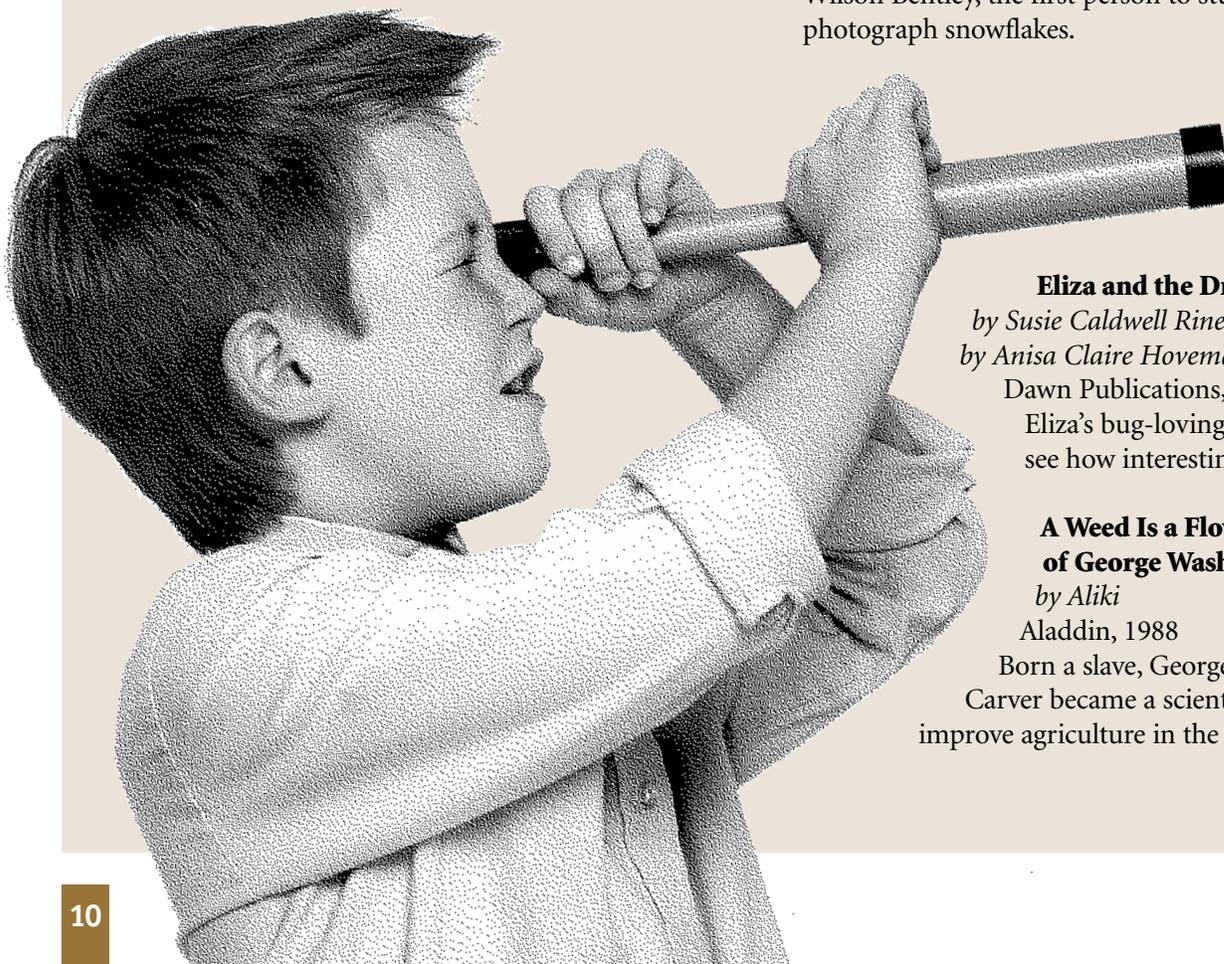
Eliza's bug-loving aunt helps her see how interesting insects can be.

A Weed Is a Flower: The Life of George Washington Carver

by Aki

Aladdin, 1988

Born a slave, George Washington Carver became a scientist who helped improve agriculture in the South.



What to Do Before Reading the Story

- Tell children you are going to be reading about scientists or science lovers who investigated the environment. Ask them to describe the characteristics of a scientist.
- Ask children to draw a picture of a scientist. After they share their sketches, explain that anyone can be a scientist—all you need is curiosity and the right tools.
- Read through the story and select new or unknown words to discuss that will help children to better understand the content.

Things to Talk about During the Story

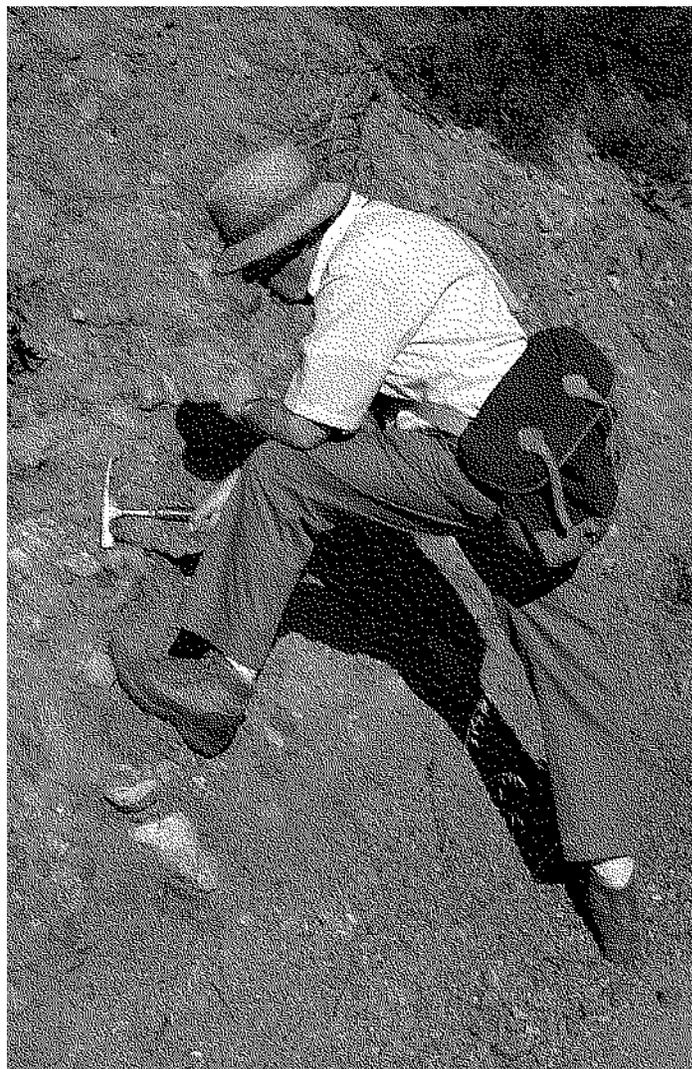
- Ask children if they would like to follow in the footsteps of the person being described.
- If possible, gather some of the tools that are mentioned in the book. Pass them around so children can inspect them.
- Point out characteristics that make the scientist in the story a good investigator. Ask children if they share the same attributes.

What You Can Do When You Finish Reading the Story

- Have children imagine they have discovered a new place that no one has been to before. What part of that place would they like to explore—the rocks, plants, water, or something else? Ask them to draw a picture of this new place.
- Create a mini excavation site in your room or outdoors. Find objects to serve as artifacts, bones, or fossils and bury them in layers of sand. Invite children to excavate. When they have found the items, ask them to guess where they might have come from.
- What tools do scientists use? If possible, bring in examples of a scientist's tools, such as a trowel, telescope, scuba gear, brush, microscope, magnifying glass, test tube, and stethoscope. Make a list of the scientists that would use those tools—archaeologist, astronomer, marine biologist, paleontologist, biologist, geologist, chemist, and zoologist—and have children match the tool with the scientist.

Family Involvement

- Before families plan their next trip to the library or bookstore, urge them to head outside to investigate the local environment. They can make a list of interesting topics they would like to learn more about and see if they can find books on these subjects.
- Many people enjoy collecting things. Whether it is stamps, antiques, shells, or rocks, collectors are like scientists, filling out their collections. Ask children to talk to their families about collections that are important to them. Ask them to share what they find out.



- Encourage families to practice science in their own kitchens. Ask them to bake something, and encourage them to pause with each step and hypothesize what will happen next. For example, “What do you think will happen when we mix the water and the oil?”

Community Connection

- Scientists perform many different jobs. Ask children to look through the yellow pages to find a scientist in their area, such as an ecologist, chemist, or veterinarian. Invite a local scientist to come in and describe their approach to making discoveries or observations.
- Have children create a booklet to record their scientific discoveries. Encourage them to take their booklets on family outings and write down their findings. Have them share their findings with the group.
- Contact the science department at a local college and ask if the children can interview a few of the science majors there. Ask children to come up with a list of questions to ask the aspiring scientists, such as what they love about science and why they have decided to pursue it as a career.

Nature's Wonders

Explore nature's wonders by learning about the sun, the air, and the oceans.

BOOK SUGGESTIONS

My Light

by Molly Bang

Blue Sky Press, 2004

The sun shares its role in providing energy and influencing everything from weather cycles to electricity.

Lightning

by Seymour Simon

HarperCollins, 1997

This captivating photo essay explores and explains lightning.

I Face the Wind

by Vicki Cobb, illustrated by Julia Gorton

HarperCollins, 2003

Children are invited to explore wind and all of its power in this 2004 Sibert Medal Honor book.

Arctic Lights, Arctic Nights

by Debbie S. Miller, illustrated by Jon Van Zyle

Walker Books for Young Readers, 2003

Beautiful pictures capture the seasons, daylight, and animals over the course of a year in Fairbanks, Alaska.

Science Verse

by Jon Scieszka, illustrated by Lane Smith

Viking Books, 2004

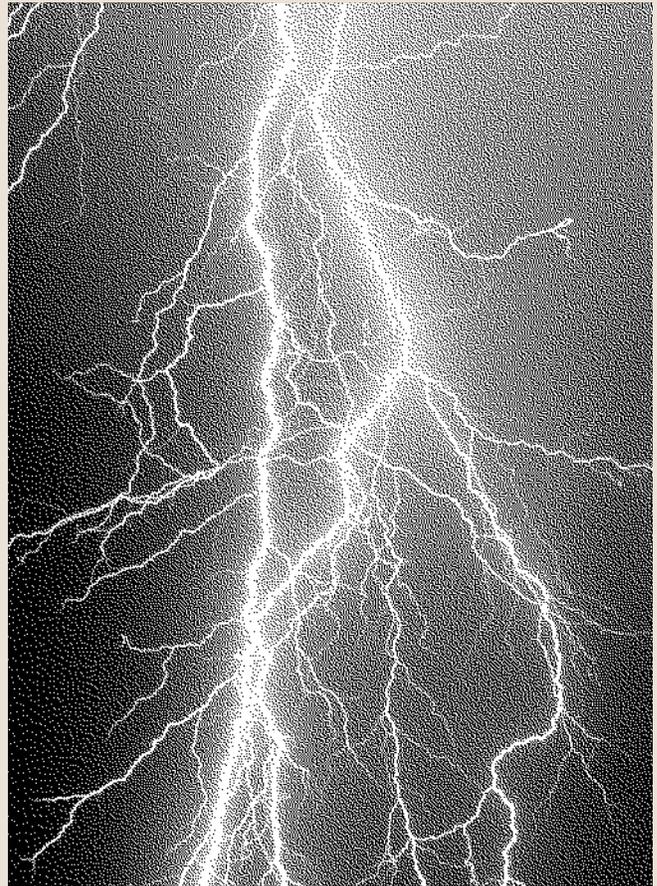
Poetry and science collide and result in fun rhymes about amoebas, combustion, metamorphosis, viruses, and more.

The Snowflake: A Water Cycle Story

by Neil Waldman

Millbrook Press, 2003

Follow one droplet of water as it melts from a snowflake and continues through the water cycle.



A Drop of Water

by Walter Wick

Scholastic Press, 1997

Extraordinary photographs explain how water affects the Earth's systems in ways both big and small.

Math for All Seasons

by Greg Tang, illustrated by Harry Briggs

Scholastic Press, 2002

By combining math and poetry, Tang offers a new way to look at nature and the four seasons.

What to Do Before Reading the Story

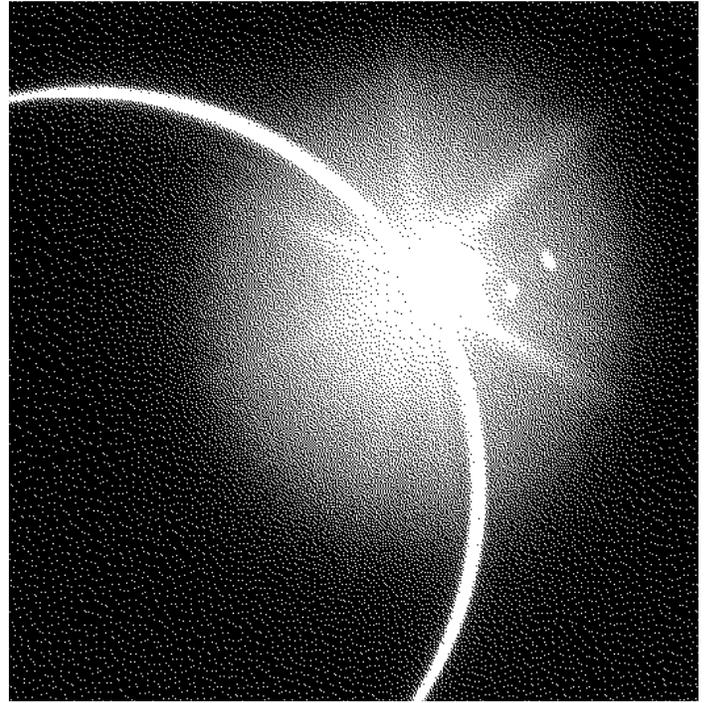
- Display the cover of the book and ask children what questions come to mind. Have them note their questions to see if the book answers them.
- When you introduce the book, ask children to think about the impact of that natural wonder. What would we do without water? Why does lightning happen? Why is the sun important to the planet?
- Tell a personal story about the natural wonder in the book you are about to read. For example, you may share the story of the first time you saw snow, or how lightning used to frighten you.

Things to Talk about During the Story

- In nonfiction books, illustrations and photos are particularly important. Allow ample time for children to look at the pictures, either by providing additional books or by passing the book around.
- Whenever possible, bring in examples of what you are reading about. Give children ample opportunities to use their other senses to explore the subject matter.
- Allow children to share their experiences with various natural wonders.

What You Can Do When You Finish Reading the Story

- Have children select a natural wonder and then write a poem about it. Encourage children to use different poetic forms, such as acrostic or concrete. Check out *A Kick in the Head: An Everyday Guide to Poetic Forms* (Candlewick, 2005) by Paul B. Janeczko, for more information.
- Explore the wonder of space with your children. Check to see if someone in your area has a portable planetarium that your classroom may borrow. Or encourage children to make their own star maps by layering a constellation map over black paper and poking holes where each star is. Use an overhead projector to project the maps onto your classroom's wall.
- Refer back to the children's earlier questions and check to see that questions have been answered. If there are more questions, encourage them to do more reading. Show children the back pages of the book to find additional information and reference texts. Try to locate copies of the books or websites.
- Have each child generate trivia questions and answers based on the reading. Collect all of the questions and divide the group into two teams. Read each of the questions aloud and have each team guess the answer. Keep the book handy to remind them of the correct responses.



Family Involvement

- Encourage making a weather journal. Families can select a week each month to pay close attention to what is happening to the weather.
- Inspire families to fly a kite together. Instructions on how to make a kite can be found at www.skratch-pad.com/kites/make.html.
- Ask families to look at the crystals around their kitchens. Salt and sugar are crystals, and honey can form crystals over time. Are there crystals in their freezers as well? If families would like to take it even further, they can make their own rock candy. The website www.exploratorium.edu/cooking/candy/recipe-rockcandy.html offers a detailed recipe on how to make this crystallized candy.

Community Connection

- Talk to children about natural disasters and discuss how the community prepares for them.
- Plan a field trip to a local planetarium, science museum, natural history museum, or children's exploratorium.
- Following the reading, have children create posters to help inform the community about what they are learning. They can title their posters "Did You Know?" and decorate them with a quick fact and picture.
- A community science fair on nature's wonders is a great way to share science with children and the whole community.
- For more ideas, check out some of RIF's other science-themed Story Samplers, including *Create a Climate for Reading* and *Understanding Natural Disasters*.

Agriculture Adventure

Discover how the exciting existence of plants enriches our lives.

BOOK SUGGESTIONS

Two Old Potatoes and Me

by John Coy, illustrated by Carolyn Fisher

Knopf Books for Young Readers, 2003

Learn how planting old potatoes in May results in new potatoes in September.

How Do Apples Grow?

by Betsy Maestro, illustrated by Giulio Maestro

HarperCollins, 1992

Simple text conveys the history of the apple and how it grows.

Pumpkin Pumpkin

by Jeanne Titherington

Greenwillow, 1986

A boy watches the life cycle of a pumpkin as it grows from a seed into the full-grown pumpkin he uses for his jack o' lantern.

The Tiny Seed

by Eric Carle

Simon & Schuster, 1991

Follow one tiny seed as it is released, avoids destruction, and settles into soil before the magic begins.

Seeds

by Ken Robbins

Atheneum, 2005

Compare the life cycles of different seeds in this simple look at how seeds are dispersed, fertilized, grow, and become the food we eat.

One Child, One Seed:

A South African Counting Book

by Kathryn Cave, photographed by Gisele Wulfsohn

Henry Holt and Co., 2003

A seed's story is set against the backdrop of a South African village and the community that cares for it.



What to Do Before Reading the Story

- Bring an assortment of seeds for children to look at. Give each of them a chance to study the different shapes and sizes. Demonstrate where the seeds come from by cutting open an apple.
- Ask children if seeds can grow in their stomachs. Explain that every seed needs soil, light, and water to grow and that the stomach is not a good environment for seeds.
- Science attempts to answer many of our questions. Have fun with these questions by encouraging children to ask about the story before you read it. Record their questions on the board.

Things to Talk About During the Story

- Use felt to cut out the various developmental stages of plants and seeds and display them on a felt board. As you read, ask children to add and remove the felt pieces on the board.
- Each stage of development shows itself in a physical way. Try to bring in samples of the stages you are reading about.
- Children may already know a lot about how plants grow. Pause while you are reading to allow them to make predictions about what comes next.

What You Can Do When You Finish Reading the Story

- Make a list of what each plant needs in order to grow. What are some differences between plants? Bring in seed packets and ask children to compare the directions.
- Bring in a variety of seeds, such as birdseed, flower seeds, and fruit seeds. Have each child select one seed, place it in a plastic baggie between moist paper towels, and put it in a sunny spot. Remind the children to keep the towels moist and check on the seed's progress daily.
- Give each child a piece of cardstock and a selection of seeds to make a collage. Encourage them to make whatever design inspires them.

Family Involvement

- Have families plant flowers, a tree, or a plant in a pot, flower box, or garden. They will need to read the seed packets or other instructions to see what kind of care is needed.
- Encourage families to do a simple home experiment about how plants draw water into their stalks. Direct them to put a couple of drops of food coloring into a cup of water, then place a stalk of celery in the water overnight. In the morning, have them check the celery to see what has happened. The colored water should have been drawn up into the celery.

- The next time family members go to the grocery store, encourage them to check out where produce comes from and make a list of the different countries. Invite them to look at a map to discover how far some foods must travel to find their place on our tables.



Community Connection

- Have children investigate what fruits and vegetables are grown locally. Ask a farmer or representative from a local cooperative market come in and talk about why it is important to eat local produce.
- The most satisfying meal is one that we have grown ourselves. Plan a community garden where children can take part in the planting, care, and harvesting of the plants. Then prepare a simple meal with the ingredients.
- Pesticides and certain fertilizers are commonly used but can have a strong impact on the environment. Have children gather information and share their findings with the community by creating a skit, writing an article for the paper, or creating posters about natural alternatives.

Science on the Web

Check out these great websites to explore science further at home or in your classrooms.

WEBSITE LIST

www.nationalzoo.si.edu/audiences/kids

Children can get an up-close view of many animals with photos, games, and activities for all ages.

www.epa.gov/kids

The Environmental Protection Agency site offers lots of activities and ideas on how kids can protect air, water, plants, and animals.

www.nea.org/parents/science.html

The National Education Association offers information for parents about science and how they can incorporate it into their home life.

www.enchantedlearning.com/science/dictionary

This site offers illustrated definitions and information about everything from astronomy to rainforests.

www.enature.com

These zip code-specific field guides, games, and information help with any learning project.

www.firstscience.com/site/webcams.asp

This website offers links to science and nature webcams.

www.science.howstuffworks.com

Children can learn more about the science behind how things work.

www.pbskids.org/zoom/activities/sci

Children can engage their inner scientist with the many science experiments found on this site.

www.sciencenewsforkids.org

Sections with puzzles, games, and science labs offer opportunities to explore science. An article archive keeps prior articles and information close at hand.

yucky.kids.discovery.com

While not for the faint of heart, this site will delight kids about all things yucky in the science world.

kids.earth.nasa.gov

NASA offers kids a closer look at how it studies air, land, water, and people.

www.ology.amnh.org

The American Museum of Natural History offers a closer look at the scientists behind the science in this fun, interactive website.

www.edhelper.com/Science.htm

This site offers lesson ideas for a wide range of science themes.

www.stevespanglerscience.com/experiments

A site filled with science experiments and opportunities to share ideas.

ABOUT RIF

Reading Is Fundamental, Inc. (RIF), founded in 1966, motivates children to read by working with them, their parents, and community members to make reading a fun and beneficial part of everyday life. RIF's highest priority is reaching underserved children from birth to age 8. Through community volunteers in every state and U.S. territory, RIF provides 4.5 million children with 16 million new, free books and literacy resources each year. For more information and to access reading resources, visit RIF's website at www.rif.org.

Reading Is Fundamental, Inc.
1825 Connecticut Avenue, NW
Suite 400
Washington, DC 20009-5726
Toll free: 877-743-7323
Website: www.rif.org



©2006 Reading Is Fundamental, Inc. All rights reserved.