Dear Educator,

The Cat in the Hat’s Learning Library introduces nonfiction to the beginning reader and serves as a great resource to help teachers make abstract scientific concepts come to life! As the students are entertained by the intriguing stories, they will also learn about fascinating facts that will keep them reading to learn even more! Take a look at some of our innovative classroom activities for the Cat in the Hat’s Learning Library series and see how your students can learn to read and read to learn!

“There is a big gap between ‘concept’ books written for preschoolers and nonfiction that requires fluent reading skills. The Cat in the Hat’s Learning Library shows young readers that books can be entertaining and educational at the same time. This is a wonderful series!”

—BARBARA KIEFER, PH.D., CHARLOTTE S. HUCK PROFESSOR OF CHILDREN’S LITERATURE, OHIO STATE UNIVERSITY
Super Science Activities

My, Oh My—a Butterfly!

**ABOUT THE BOOK**
Sally and Dick observe a small miracle in their own backyard—the metamorphosis of an egg into a caterpillar into a chrysalis into a bright new butterfly! Along the way, beginning readers will find out how butterflies see thousands of images at once, drink nectar from flowers, avoid predators, and can be identified by size, shape, and color.

**ACTIVITY:** Make a Butterfly Cage

**OBJECTIVE:** Students will nurture butterfly caterpillars (larvae) into adult butterflies and observe the stages from caterpillar to butterfly.

**MATERIALS:** box (about 12 x 9 x 18), netting, masking tape, scissors, sponge or damp cloth, butterfly larvae/caterpillars (can be found outside in some areas or ordered online), leaves, twigs, small dish, honey, notebook

**DIRECTIONS:**
1) Order ahead or acquire butterfly larvae/caterpillars.
2) Prepare cage by covering the open part of the box with netting and tape it to the edges of the box. This is the viewing window. Have boxes stand tall.
3) Cut a hole on the side of the box to act as a doorway for students to put fresh growth and water in the box. Note: A cage should hold approximately eight butterflies. If necessary, prepare more boxes.

**STUDENT ACTIVITY:**
1) Place leaves and twigs on bottom of box for caterpillars to climb on and feed from.
2) Place caterpillars on living leaves on bottom of box. Keep no more than eight caterpillars in a box.
3) Be sure to provide plenty of fresh food (new leaves) to eat and a damp cloth for caterpillars to get moisture from.
4) Frequently clean droppings from the bottom of box.
5) Observe changes in caterpillars. They shed their skin about four times.
6) Keep a journal to record your observations. Draw pictures of different changes and stages.
7) Your caterpillars will find a place to “hang” and pupate as they turn into chrysalis form. Observe chrysalis and note any changes over approximately 10 days.
8) Your beautiful butterflies should soon emerge. Feed your adult butterflies a mixture of half water, half honey placed in a small dish.

There’s No Place Like Space!

**ABOUT THE BOOK**
 Blast off for educational fun! Beginning readers and budding astronomers are launched—via Seussian sorcery—on a wild trip to visit the nine planets in our solar system, along with the Cat in the Hat, Thing One, Thing Two, Dick, and Sally.

**ACTIVITY:** Moon Watcher

**OBJECTIVE:** Students will be able to observe the moon’s shape and draw what they see, keeping a daily log. Students will be able to compare their results with the newspaper’s diagrams of the moon.

**MATERIALS:** moon-watch log sheet, current newspaper

**DIRECTIONS:**
1) Have students “moon watch” each night for a two-week period, keeping a journal of their thoughts, questions, and comments.
2) As part of the moon watch, have children draw the moon as it appears to them every night during this two-week period to gain an understanding of the moon’s regular phases. It works best if they observe the moon from the same location.
3) Using a current newspaper, compare the students’ drawings with the pictures in the paper. This is a good cross-reference and a way to introduce parts of the newspaper.

**AFTER THE TWO WEEKS:** Have students discuss or write a comparative essay about the phases of the moon answering the following example questions:
What was the moon’s shape on the first night? What was its shape a week later? What was its shape at the end of the two weeks?

Oh, the Things You Can Do that Are Good for You!

**ABOUT THE BOOK**
With the help of the staff and equipment at a Seussian spa, the Cat in the Hat explains the basics of healthy living, from eating right and getting enough exercise and sleep to having a positive body image to the distance and speed of a typical sneeze!

**ACTIVITY:** Watch Out—Acid Attack!

**OBJECTIVE:** Students will discover how important it is to brush their teeth so they do not decay.

**MATERIALS:** two hard-boiled eggs, two cups of vinegar, large jar with lid, large poster paper

**DIRECTIONS:**
1) Show students a hard-boiled egg and ask them, “Why do you think there is a shell around the egg?” Discuss the students’ responses. Make sure they come to the conclusion that the hard shell protects the egg. Now give them your best smile and say, “See my teeth? Just like the egg, my teeth are protected. Enamel protects my teeth the same way the shell protects what is inside the egg.”
2) Pour two cups of vinegar into a large jar. Have a student place the egg in the jar, then replace the lid and place the jar in a safe place for student observation.
3) Ask the students to predict what they think will happen to the egg. Write their predictions on a large piece of poster paper that will be hung in your room.
4) When two days have passed, slowly and gently remove the egg from the jar. Allow each student to look at the egg and compare their predictions with the results and with the other hard-boiled egg.

**CONCLUSION:** Tell the class that the vinegar caused the shell of the egg to break down and become soft, the same way that tooth enamel is damaged by acids and bacteria in the mouth. Brushing every day is the only way to keep this from happening.
**Hurray for Today!**

**ABOUT THE BOOK**
With a little help from the Birthday Bird of Katroo, the Cat and company explain the origins of common holiday rituals such as lighting candles, dying eggs, and sending cards. Holidays include Christmas, Hanukkah, Kwanzaa, New Year’s, Groundhog’s Day, Valentine’s Day, President’s Day, St. Patrick’s Day—and more!

**OBJECTIVE:** Students will identify the holidays we celebrate in this country and match them to the months in which they take place.

**MATERIALS:** pre-made calendar grids on large butcher paper, markers, paints

**DIRECTIONS:**
1) Ahead of time, prepare 12 calendar grids.
2) Divide students into 12 different groups for the 12 different months of the year.
3) Ask students to identify the holidays in their assigned month.
4) Have students look at a calendar for the current year, then number the days of the month on the pre-made butcher paper calendar, documenting the holidays that fall in that month.
5) Decorate the page with art that corresponds to that month’s holidays.
6) Hang calendar pages in the hall for all to see!

**ACTIVITY:** Deck the Halls with Holidays

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**I Can Name 50 Trees Today!**

**ABOUT THE BOOK**
While stopping to admire some of the world’s most amazing trees, the Cat and Co. teach beginning readers how to identify different species from the shape of their crowns, leaves, lobes, seeds, bark, and fruit. Kids will learn about many trees common to North America.

**OBJECTIVE:** Students will create their own tree logbooks to record information they discover about local trees in their area.

**MATERIALS:** notebook, measuring tape, tape, color pencils or crayons, encyclopedia, the Internet

**DIRECTIONS:**
1) Have students set up notebooks as tree logbooks. They can decorate the front of the logbooks.
2) Send them on a tree hunt around their neighborhood. For each new tree they find, have them create an entry with these components (see sample log in story on p. 37):
   a. Draw a picture of the tree.
   b. Describe the shape of the crown.
   c. Measure the width of the trunk.
   d. Collect a sample of its leaves and tape in logbook.
   e. Describe the bark.
   f. List any other interesting facts about that tree.
3) Ask students to name the tree if known, otherwise research its name using the information collected, encyclopedias, or the Internet.
4) Have students share and compare their findings.

**ACTIVITY:** My Own Tree Log

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**Oh Say Can You Say What’s the Weather Today?**

**ABOUT THE BOOK**
The Cat in the Hat, with the help of Thing One and Thing Two, takes Dick and Sally around the world to check out all kinds of weather. They learn about meteorologists, weather balloons, and thermometers. They study the water cycle. They learn about rain, sleet, snow, and clouds. They go from the North Pole to a tropical jungle and back home again.

**OBJECTIVE:** Students will be able to observe how water turns to steam and then back to water in the form of rain. They will be able to illustrate the water cycle.

**MATERIALS:** books about the weather cycle, electric teapot, large metal pan lid, paper, crayons

**DIRECTIONS:**
1) Fill an electric teapot with water and heat.
2) The teacher will hold the lid over the steam that comes from the teapot.
3) Point out to students that as the steam rises and hits the lid it will condense and form water drops. These drops of water will then fall like rain.
4) Using other books and resources about the water cycle, have students write a description of the process and make their own illustrations.

**ACTIVITY:** Making Rain

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**Inside Your Outside**

**ABOUT THE BOOK**
The Cat in the Hat takes Dick and Sally for a trip through the Inside Your Outside Machine. They learn about their insides from their toes to their brains—the workings of the brain and their skeletons. They study their senses and muscles, eyes, and intestines. When the ride is done, the most important thing they learn is that something is going on inside them all the time.

**OBJECTIVE:** Students will be able to draw and label the systems of the body

**MATERIALS:** large sheets of butcher paper, crayons, markers, pencils, pictures of the body systems

**DIRECTIONS:**
1) After reading the book, review the different body systems.
2) As a group, label the major parts of the body.
3) Break the class into four groups and assign one child in each group to lay down on their piece of butcher paper while the other group members trace that child.
4) Each group will draw in a different body system on the traced body on the butcher paper.
5) Have students label the picture and all major parts.
6) Display the four labeled body systems around the room.

**ACTIVITY:** Drawing What’s Inside Your Outside
**About the Book**
The Cat in the Hat takes Sally and Dick for an "umbrella-vator" ride through the understory, canopy, and emergent layers of a tropical rain forest, encountering a host of plants, animals, and native peoples along the way.

**Activity:**
**Fill the Amazon**

**Objective:** The students will categorize the different plants and animals into the four levels of the rain forest—forest floor, understory, canopy, and emergent.

**Materials:** encyclopedias, Internet, books about the Amazon, paper, crayons, pencils, markers

**Directions:**
1) As a class, create an empty mural of the Amazon habitat in the classroom or hallway.
2) Ask students to research animals and plants found in the Amazon by using the Internet, books, and encyclopedias.
3) Have students choose two animals and two plants to draw and cut out and glue to the mural, making sure they are placed in the correct level.
4) Students can then write a short description of their contributions to glue next to their pictures.

**Oh, the Pets You Can Get!**

**About the Book**
The Cat in the Hat takes readers on a visit to a very special place called Gerpletz. Find out all about owning a pet including the exercise the pet will need, the types of food that it will eat, and the places where it will sleep. And of course there is a reminder to visit the vet.

**Activity:**
**Caring for a Pet Collage**

**Objective:** Students will learn and communicate the needs of pets.

**Materials:** encyclopedia, books, Internet, library, art supplies (paper, markers, crayons, scissors, glue, fake fur, sticks, cloth, cotton balls, pipe cleaners, sand paper, etc.)

**Directions:**
1) Make a list of a variety of pets from which the class can choose.
2) Arrange the class in small cooperative learning groups and have each group pick a type of pet to study, making sure that there are plenty of resources for students to look up information.
3) Have students create a display to share the information they learned about their pet, noting type of pet (mammal, reptile, bird, etc.), the things it may eat, where it will sleep, if it needs a cage, or any other special needs.

**If I Ran the Rain Forest**

**About the Book**
The Cat in the Hat takes Sally and Dick for an “umbrella-vator” ride through the understory, canopy, and emergent layers of a tropical rain forest, encountering a host of plants, animals, and native peoples along the way.

**Objectives:**
1. Students will learn and communicate the needs of pets.
2. Students will categorize the different plants and animals into the four levels of the rain forest—forest floor, understory, canopy, and emergent.
3. Students will research and draw animals and plants found in the Amazon.
4. Students will place their contributions in the correct level of the rain forest.

**Materials:**
- Encyclopedias
- Internet
- Books about the Amazon
- Paper
- Crayons
- Pencils
- Markers

**Directions:**
1. As a class, create an empty mural of the Amazon habitat in the classroom or hallway.
2. Ask students to research animals and plants found in the Amazon by using the Internet, books, and encyclopedias.
3. Have students choose two animals and two plants to draw and cut out and glue to the mural, making sure they are placed in the correct level.
4. Students can then write a short description of their contributions to glue next to their pictures.
Oh Say Can You Say Di-no-saur?

ABOUT THE BOOK
The Cat in the Hat makes another surprise appearance at Dick and Sally’s house—only this time he makes his entrance riding atop a brachiosaurus! Soon he’s off, along with Dick and Sally, millions of years back in time to see how fossils were created. Then it’s on to a tour through the Cat’s own Super Dino Museum—a fabulous place where the correct pronunciation of a dinosaur’s name wins you a peek at the real living thing! Beginning readers will love exploring the prehistoric world of dinosaurs with the Cat in the Hat as their guide!

OBJECTIVE: Students will learn about the different kinds of fossil formations and be able to create a fossil made of clay.

MATERIALS: pictures of fossils, clay that hardens, optional: twigs, leaves, bones

TALK ABOUT SOME DIFFERENT TYPES OF FOSSILS BEFORE HAVING STUDENTS CREATE THEIR OWN.

BONES/TEETH: Bones can turn into fossils when they are covered in dirt and sand. Tiny minerals in the dirt or sand sneak into the small spaces in the bones, making them harder and heavier until they turn into fossils.

PRINTS IN ROCKS: Prints can be made when an animal, insect, or plant falls onto soft dirt. The living thing dies and rot away, but the print is still left in dirt. Then the dirt turns hard, making a permanent print of the living thing.

TRACKS/TRACE FOSSILS: Tracks are made when an animal walks through mud. The mud turns into a rock called sandstone, fossilizing the prints of the animal.

ICE: Discuss how Earth cooled quickly in areas that weren’t normally cold. Animals were probably trapped and frozen when they fell into cracks between glaciers. You may want to talk about why mammoths were still fresh enough to eat when discovered and relate it to food in the freezer.

AMBER FOSSILS: An insect sitting on a tree may have gotten stuck in the tree’s sticky sap. More of this sap would keep dripping out of the tree and eventually cover the entire insect! The sap dried and hardened, and sometimes paleontologists find these beautiful pieces of sap, called amber, with insects inside them.

DIRECTIONS:
1) Give each student a ball of clay and have them flatten it into a square shape.
2) Have students make imprints of their hand, objects such as leaves or twigs, etc.
3) Set the clay aside to harden (like a real fossil). After the clay has dried, the “fossils” can be buried in a sandbox and the students can dig them up like real-life paleontologists.

A Whale of a Tale!

ABOUT THE BOOK
The Cat and Co. take to the high seas in search of whales, dolphins, and porpoises—those aquatic mammals known as cetaceans. While learning how cetaceans stay warm without hair, have teeth or baleen, swim in troops, spyhop, spin, breach, and see via echolocation, kids are introduced to almost 20 different species of these mammals.

OBJECTIVE: Students will compare their own height to different cetaceans.

MATERIALS: graph paper, tape measure, tape and/or string, pencils, coloring supplies, large ground area, such as gym floor or playground field.

DIRECTIONS:
1) Have students measure their height in feet.
2) Create a bar graph to compare students’ heights with various cetaceans’ lengths.
   a. On the y-axis (vertical side), use the scale 1 box = 1 foot and label the y-axis “Height in Feet.”
   b. On the x-axis (horizontal side), list students’ names and the cetaceans you have lengths for. Label the x-axis “Mammals.”
   c. Fill in the heights of your students and the lengths of the other cetaceans on the bar graph. Start with these average lengths:
      Adult Pygmy Right Whale = 20 ft; Orca = 25 ft; Spotted Dolphin = 7.5 ft; Sperm Whale = 58 ft; Porpoise = 6.6 ft
   d. Discuss similarities and differences of lengths/heights.
3) In a gym or on a playground field, use a tape measure to measure out the length of each cetacean across the ground. Use string or tape to mark off each cetacean’s length, labeling each string.
4) Have students lay head to feet next to the string to see how many students it takes to match each cetacean’s length.

Fine Feathered Friends

ABOUT THE BOOK
Bees, hummingbirds, ostriches, flycatchers, chickadees, and bald eagles! Dick and Sally find themselves on a bird-watching tour led by the Cat in the Hat. After a quick lesson on just exactly what a bird is, they go motoring around the world to observe our fine feathered friends in their natural habitats. Time flies, and soon it’s late, but the Cat saves the day by shifting his vehicle into Fine Feathered All-Weather Flying Machine mode and winging Dick and Sally back home.

OBJECTIVE: Students will be able to construct a bird feeder, observe bird behaviors, and identify local birds in the community.

MATERIALS: a large, open pinecone; vegetable shortening, lard, or suet; oats or cornmeal; birdseed; a few feet of string

DIRECTIONS:
1) Tie a few feet of string to a pinecone.
2) Mix 1/2 cup vegetable shortening, lard, or suet with 2-1/2 cups cornmeal or uncooked oats until well blended. Optional: add dried fruit (chopped up), chopped nuts, and/or seeds (especially sunflower and millet), which are high-energy bird foods. Cover the pinecone with the mixture.
3) Roll the pinecone in birdseed and then suspend it from a tree branch outside.

CONCLUSION: Students can keep a log of what behaviors they see and try to identify the names of the birds that visit their feeder.
Even More Science Activities to Try in Your Classroom!

**Is a Camel a Mammal?**

**ABOUT THE BOOK**
The Cat in the Hat takes Dick and Sally on a Seussian safari to observe the many different kinds of mammals. An invaluable tour for all animal lovers!

**ACTIVITY:** Have students select a mammal from the story and research its physical description, habitat, location, reproduction/birth, and its predators/prey. Publish the information as a class poster, report, or book.

**Clam-I-Am!**

**ABOUT THE BOOK**
Norval the fish is hosting a seaside talk show for the Fish Channel—and the Cat in the Hat and Thing One and Thing Two are Cameracat and Crew! Among Norval’s special guest are Clam-I-Am, horseshoe, hermit crabs, jellyfish, miscellaneous mollusks, and more!

**ACTIVITY:** Using the Internet and various books, discuss with the class how ocean animals can be classified into different phylum—sea mammals (whales), crustaceans (shrimp), echinoderm (starfish), cnidarian (jellyfish), mollusks (clams), and fish. Reread Clam-I-Am and identify the different animals in the book and their species classification. Make a poster of each kind of species with its characteristics and sample animals listed.

**A Great Day for Pup**

**ABOUT THE BOOK**
From Australia to Asia to Africa to Antarctica, the Cat in the Hat travels the globe in search of wild animal babies.

**ACTIVITY:** After reading A Great Day for Pup, have students draw a picture of their favorite wild baby and its parent. Under each drawing, students can write what they learned about each baby’s early life.

**Wish for a Fish**

**ABOUT THE BOOK**
The Cat in the Hat, Sally, and Dick take an undersea voyage aboard the S.S. Undersea Glubber! Traveling down from the Sunny Zone to the Dark Zone to the Trench at the bottom, Captain Cat and his crew get up close and personal with the different life forms found at each level of the ocean. Along the way, they meet sharks, jellyfish, dolphins, manatees, whales, and sea cucumbers, to name just a few!

**ACTIVITY:** Discuss with students the different kinds of sea creatures they have learned about and ask them to choose their favorites. Have students find out as much as they can about their favorite sea creature, then draw and cut out a picture of their favorite fish or other sea creature to display around the classroom. After all the research is collected, have the students share with each other what they have learned about their favorite sea creature. You may want to celebrate with a special snack, such as saltwater taffy or crackers shaped like fish.

**There’s a Map in My Lap!**

**ABOUT THE BOOK**
The Cat in the Hat introduces beginning readers to maps—the different kinds (city, state, world, topographic, temperature, terrain, etc.); their formats (flat, globe, atlas, puzzle); the tools we use to read them (symbols, scales, grids, compasses); and funny facts about the places they show us (“Michigan looks like a scarf and a mitten! Louisiana looks like a chair you can sit in!”).

**ACTIVITY:** Define the terms **longitude** and **latitude**. Have students blow up balloons (or have them already blown up), then tape them to their desks. Ask students which lines on a globe go up and down (longitude). On one half of the balloon, have them draw the prime meridian (0˚), 30˚E, 60˚E, 30˚W, and 60˚W; just as it is shown on page 11 in the book. Ask students which lines go side to side (latitude—they look like a ladder), then on the other half of the balloon, have them draw the lines of latitude: equator (0˚), 30˚N, 60˚N, 30˚S, and 60˚S. Have students compare their models to a globe.

**On Beyond Bugs!**

Find out all you ever wanted to know about insects when the Cat and company get an up-close view of life as a bug. Kids will learn how insects—from the spittlebug to the honeybee to the moth—see, smell, communicate, and pollinate, as well as sometimes pester and amaze and generally make life better for us humans. Catch the bug buzz with the Cat in the Hat and all his friends!

**ACTIVITY:** Have students make predictions about what will happen when you put a celery stalk or white carnation in red water. Add red food coloring to water. Cut off the bottom of a celery stalk or carnation. Place it in the colored water. In a few moments, the dye will start to rise up the celery stalk or carnation showing how the water shoots up the stem to “feed” the plant.

**Oh Say Can You Seed?**

With the able assistance of Thing One and Thing Two—and a fleet of Rube Goldbergian vehicles—the Cat in the Hat examines the various parts of plants, seeds, and flowers: basic photosynthesis and pollination; and seed dispersal.

**ACTIVITY:** Have students make predictions about what will happen when you put a celery stalk or white carnation in red water. Add red food coloring to water. Cut off the bottom of a celery stalk or carnation. Place it in the colored water. In a few moments, the dye will start to rise up the celery stalk or carnation showing how the water shoots up the stem to “feed” the plant.

**Teaching ideas provided by Kristi Weikel, classroom teacher, and Denise Barbazette, classroom teacher.**

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