

# ART to ZOO

## TEACHING WITH THE POWER OF OBJECTS

Smithsonian Institution

January/February 1996



### Inside

Lesson Plan

Take-Home Page  
in English/Spanish

### Subjects

Social Studies

Science

Language Arts

### Grades

Elementary

Publication of *Art to Zoo* is made possible through the generous support of the Pacific Mutual Foundation.

**Celebrating the Smithsonian's Birthday**

**150**  
1846-1996  
Smithsonian

# CONTENTS

Introduction *page 3*

Lesson Plan Step 1 *page 6*

Take-Home Page *page 7*

Take-Home Page in Spanish *page 8*

Lesson Plan Step 2 *page 9*

Activity Pages *page 10*

Resources *page 14*

*Art to Zoo's* purpose is to help teachers bring into their classrooms the educational power of museums and other community resources.

*Art to Zoo* draws on the Smithsonian's hundreds of exhibitions and programs—from art, history, and science to aviation and folklife—to create classroom-ready materials for grades four through nine.

Each of the four annual issues explores a single topic through an interdisciplinary, multicultural approach.

The Smithsonian invites teachers to duplicate *Art to Zoo* materials for educational use.

## Cover

*Abraham Lincoln's top hat dressed up for the Smithsonian's 150th birthday.*

# CELEBRATING THE SMITHSONIAN'S BIRTHDAY

If you could, would you travel back in time to learn about the past? Imagine returning to the days of Abraham Lincoln and the Civil War. You could follow the rise of the famous Illinois politician to the presidency, where he kept our country from breaking apart during the Civil War and fought for the freedom of all people, black and white. You would not need a history book to tell you what was happening—you could find out for yourself by attending one of his campaign debates or speeches as president. You could see actual battles, visit hospitals, or talk to soldiers. It might take time and expense, but you could see history for yourself.

If you were more interested in transportation during this time in history than in politics, you would only have to look around at the horses, carriages, trains, canal barges, ships, and other conveyances of the time to gain understanding. The same would be true if you wanted to know about clothing, farming, the newspaper business, or many other subjects.

Unfortunately, time travel is not yet possible. Museums, however, can give us a good idea of what life was like at other places and times, as well as delighting our senses and enriching our understanding of many subjects. This is because museums house *objects and artifacts*—real things that we can observe, inspect, study, and enjoy.

# CELEBRATING THE SMITHSONIAN'S BIRTHDAY

The objects inside museums may be connected with famous people such as Abraham Lincoln or made by exceptional artists such as Vincent Van Gogh. Or they may be natural specimens such as bones, beetles, or fossils. They may also be simple, ordinary things such as tools, forks and spoons, or quilts that show what everyday life was like for most people. All of these things offer unique ways to learn about life in our nation and our world.

## THE POWER OF OBJECTS

We can imagine Abraham Lincoln delivering his eloquent Gettysburg Address on the battlefield. We can recall the story of his assassination at Ford's Theatre. But these stories may seem far removed from us, a trace of our distant past, until we walk into a museum and see his tall stovepipe hat (see page 10). Suddenly, we realize, this man really lived! The sweat from his brow, the hair on his head, and the touch of his fingers all left their marks on this particular piece of clothing. Imagine the stories it could tell as a firsthand witness to events that changed our country forever.

Of course, museum collections bring life to our understanding of more subjects than history. To the artist or art enthusiast, no amount of study can replace the experience of seeing in person great works of painting and sculpture. An art student could spend years studying Pablo Picasso's style of cubism by reading theory and looking at pictures of his paintings. For all this work, however, the student's understanding would be incomplete if he never saw the actual paintings. Standing in front of Picasso's *Head* (see page 13) the observer can detect the subtle hues of color, the curves and lines that lie in the wake of the artist's stroke, the painting's size. He sees the elements of the work—the idea behind it, its colors, its shape—not as part of a description but as something real, something that the artist thought about and created with his own hands.

The more a subject involves our senses and perceptions, the more deeply we understand it. The history of space exploration, for example, becomes a human, emotional story when we can examine space suits that were worn by actual astronauts. The space suit shown on page 10 contains many different layers of protection, each one revealing something about what the human body



*This television set from the 1950s and the dolls on the facing page are part of a larger group of personal effects—including packets of old letters, photographs, old school books and cookbooks, record albums, and clothing—donated to the Smithsonian's Anacostia Community Museum by the Griffiths family of Washington, D.C. Passed down from one generation to another, the objects became filled with meaning for their owners—and now for today's museum-goers.*



needs to exist in space. The outer shell guards against micrometeorites, fire, and massive temperature swings. The inner layers maintain a safe air pressure level and ventilate the body by providing oxygen and removing carbon dioxide and moisture. What kind of atmosphere requires all of this protection? Would a person feel safe or vulnerable wearing this suit? What kinds of technologies had to exist before such a suit could be created? Real objects and artifacts like this space suit provide factual information as well as stimulate the imagination.

The Smithsonian

Institution houses these treasures—along with 140 million other objects in its collections. If you consider that each object has stories to tell, then you may understand why the Smithsonian and museums across the country study and interpret history, culture, and science through objects.

### TEACHING AND LEARNING WITH THE SMITHSONIAN

The learning possibilities that museums offer are myriad, especially at the Smithsonian, which this year celebrates its 150th birthday. Now the world's largest museum complex and research center, the Institution began as the

bequest of an English scientist, James Smithson. In his will of 1827, he wrote that, upon his death, his estate should go to the United States to found an "establishment for the increase and diffusion of knowledge." An act of Congress established the Smithsonian in 1846.

This year, the Smithsonian commemorates the first century and a half of its existence through an unprecedented traveling exhibition, *America's Smithsonian*. The exhibition will offer people across the country the unique experience of seeing right in their own communities some of the treasures that bring our history and culture alive.

In that spirit, this *Art to Zoo* celebrates museum-based learning through the study of some of the objects in the exhibition. The lessons and activities in this issue will help your students develop observation and reasoning skills through a close look at objects. These exercises may help your students understand why the Smithsonian Institution is sometimes called the nation's treasure house. And by thinking about what they themselves collect, students may understand the unique storytelling power of objects.

### CELEBRATE WITH US

**Celebrating 150 years of discovery, fun, and research . . . the Smithsonian Institution turns 150 years old in 1996! Join the celebration in Washington, D.C., on television, and right in your own hometown.**

***America's Smithsonian*, a special exhibition, has opened in Los Angeles and will visit other cities in 1996 and 1997. This once-in-a-lifetime event presents more than three hundred objects, including a space capsule, First Ladies' gowns, and the ruby slippers from *The Wizard of Oz*. See page 14 for more on the exhibition.**

**Also in 1996, CBS television will broadcast a Smithsonian special on August 10 (our official birth date!) as well as Smithsonian "minutes" in which celebrities talk about their favorite Smithsonian objects.**

# LESSON PLAN

## Step 1

### WHY OBJECTS?

#### Objectives

- Identify general reasons for collecting objects.
- Compile a personal collection inventory.
- Define personal reasons for collecting.

#### Materials

- Copies of the Take-Home Page, page 7 or 8.
- Pens or pencils.

#### Subjects

- Language arts, social studies

### Procedure

1. Ask your students if they have ever collected anything, such as feathers, coins, dolls, or baseball cards (*you may want to use other examples that better reflect your students' interests*). Select two or three student volunteers and ask them to explain their reasons for collecting. Answers will vary, but students will probably conclude that they collect objects because they see them as beautiful, valuable, unique, useful, or old. (*Some students may find it difficult to explain the appeal of the objects they collect. Be sure to emphasize that collecting is often a personal matter that depends on individual interests.*)

2. Give each student a copy of the Take-Home Page. Tell your students that they will now survey their own collections of personal objects. Emphasize that a collection can be any series of objects that students enjoy, without regard to monetary value. (*If time allows, encourage students to bring in a sampling of their collections to share with the class.*)

3. After your students have completed the Take-Home Page, begin a class discussion to determine the many reasons they have for collecting objects. Ask your students to tell what kinds of objects they collect and why those objects appeal to them.

If students have difficulty expressing why they have chosen to collect these specific objects, refer back to the Introduction for a discussion of the reasons different objects have great value (historical significance, beauty, usefulness). You may find that students will provide other reasons for collecting as well. (*If students have brought in their collections, now would be a good time to show them to the rest of the class.*)

4. Continue the class discussion by asking your students to describe how they care for their objects. (*Some students may find it difficult to explain how they protect their collections. Stress that caring for objects can be as simple as keeping them out of the rain, the sun, or their younger brothers' and sisters' hands.*)

5. Conclude by summarizing the value that different objects have. Suggest that, just as many things in museums were once ordinary objects, some of the students' belongings may one day take on historic importance.

# TAKE-HOME PAGE

## My Collection

### To the teacher

- Duplicate this page for students.
- Use with Lesson Plan Step 1.

Publication of *Art to Zoo* is made possible through the generous support of the Pacific Mutual Foundation.

**Directions:** Look around your room at home or your desk or locker at school for objects that you have collected. When you have found them, list and/or sketch and describe them here. Then answer these questions about your collection.

Why are these objects important to me?

---

---

How do I take care of them?

---

---

What do I know about my collection? (Where did the objects come from?

What are they made of? How old are they?)

---

---

How could I find out more about the things in my collection?

---

---

Do I ever show my collection to my family and friends?

---

---

# TRABAJO PARA HACER EN FAMILIA Mi Colección

## Al maestro(a)

- Copie esta página para los alumnos.
- Usela con el primer paso del plan de la lección.

Esta publicación ha sido posible gracias al generoso aporte de la Pacific Mutual Foundation.

**Instrucciones:** Mirar alrededor de tu cuarto o escritorio o tu “locker” en la escuela y encuentra objetos que coleccionas. Después de encontrarlos, haz una lista de ellos, dibújalos y descríbelos. Entonces, contesta estas preguntas sobre tu colección.

¿Por qué son importantes para mi estos objetos?

---

---

¿Cómo los cuido?

---

---

¿Qué se acerca de mi colección? (¿De dónde son estos objetos? ¿De qué están hechos? ¿Cuántos años tienen?)

---

---

¿Cómo podría aprender más sobre las cosas en mi colección?

---

---

¿Alguna vez le he enseñado mi colección a mis amigos o a mi familia?

---

---

# LESSON PLAN

## Step 2

### LEARNING THROUGH OBJECTS

#### Objectives

- Observe and describe selected objects from *America's Smithsonian*.
- Match written descriptions with visual images.
- Use objects as the basis for creative writing.

#### Materials

- Copies of Activity Pages, 10–13.
- Pens or pencils.

#### Subjects

Social studies, science, language arts

#### Procedure

1. Ask your students if they have visited places where people display collections of objects (e.g., a school science fair, a trophy case, or an antique car show). Ask them to describe what they saw and learned from the displays.

2. Find out if any of your students have ever visited a museum. If so, what objects do they remember most from their visits? Tell them that museums care for and display objects so that people can enjoy and learn from them. Museums can be as small as a gallery of objects or big enough to hold thousands of visitors at one time.

3. Tell your students that museums bring history, culture, and science alive by collecting and displaying objects that teach us about the past, move us with their beauty, and help us understand the physical world.

4. Divide the children among groups of three or four and give each team a copy of the object photographs on pages 10 and 13. Tell them that the mystery objects they are looking

at are from *America's Smithsonian*, a traveling exhibition commemorating the 150th birthday of the Smithsonian Institution.

5. Give each group a copy of the mystery object descriptions on pages 11 and 12, cut out and individually pasted onto note cards to make them durable. Tell students to read quietly all ten of the descriptions and then to look at the objects again. After everyone has finished reading the note cards, have each team work together to match each object with its description. Tell students to write the number of each object on the note card that they think best describes it. (*Be sure to tell students that there are two extra descriptions of objects that are not shown.*) As a class, confirm the students' reactions to the objects. [Key: Description A is object 6; B is 3; C is not shown; D is not shown; E is 2; F is 1; G is 5; H is 7; I is 8; J is 4.]

6. Extend this activity with one or more of the following writing projects.

- Have each child choose one of the eight objects. Make photocopies of the objects, hand them out with blank paper, and have students create picture

postcards. Have them write out their card, telling someone about the object and why the writer thought the recipient would enjoy seeing it.

- Visit a museum in your area and find postcards of the collections. Have students write out the cards to each other or friends, describing the objects and why they like them.

- Using cameras or sketchbooks, have students create cards depicting objects from their personal collections. Have them write descriptions or labels for the objects.

- Have the class come up with its own group of treasures like the ones in this issue of *Art to Zoo*. They could organize the objects under themes such as “community,” “school,” “family,” or “our class.” Have them write labels or descriptions and set up the display in the classroom or some other part of the school.

# ACTIVITY PAGES

## Mystery Objects

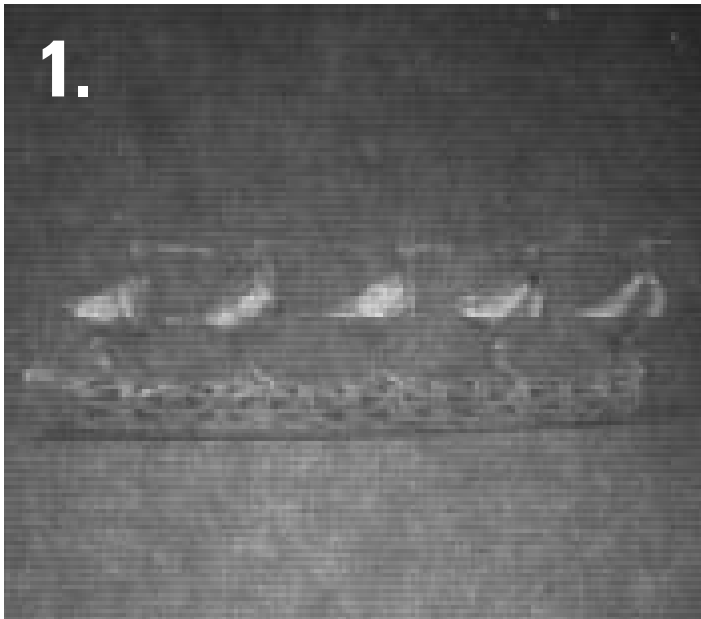
### To the teacher

- Duplicate pages 10–13 for students.
- Use with Lesson Plan Step 2.

### To the student

- Look closely at these objects and match them with their descriptions.
- Why do you think they are in the Smithsonian?

1.



2.



3.



4.



**A.** With all my crooked angles and colors, I look like a piece of pure art, sprouting out of a sculptor's dream. However, I also have a definite function. Can you guess what it is? Look closely now and you can see my handle (a series of twigs), spout (a branch), and base (a sturdy slab of rock).

The artist of this work, Ralph Bacerra, used his sense of humor and playfulness to make such an ordinary object into a fantastic sculpture. I look so unusual that it takes a while to figure me out. Leaning over at an angle, I look like an old tree—certainly not something you would likely see beside a plate of cookies and cake!

**I am mystery object \_\_\_\_\_**

**C.** The artist Thomas Eakins used dark and somber colors to paint me, a portrait of his wife. The realistic style of his painting shows how Eakins, unlike most artists before him, never tried to make his subjects look prettier or happier than they actually were. He tried to depict them exactly as they appeared in person, allowing their features and expressions to tell their own story.

You can see his method in this portrait. Although the subject certainly does not appear beautiful, the realistic depiction of her features reveals a quiet strength within her character.

**I am mystery object \_\_\_\_\_**

**E.** You probably have not seen me around your neighborhood or at home. I was built to protect people as they walk and work in places that are far, far away from us. My outer layer guards against micrometeorites, fire, and extreme temperatures of more than 120 degrees Celsius (250 degrees Fahrenheit) to negative 120 degrees Celsius (negative 250 degrees Fahrenheit). My inner suit has even more layers, complete with special joints that allow movement and a water circulation system that prevents sweating and dehydration.

Altogether, I weigh around 82 kilograms (180 pounds) on Earth—a lot to carry but well worth the effort. Besides, once we get where we are going, you will hardly feel me at all!

**I am mystery object \_\_\_\_\_**

**B.** Do I look familiar? I belonged to a very famous person: Abraham Lincoln, our sixteenth president. He may have been holding me when John Wilkes Booth fatally shot him at Ford's Theatre on April 14, 1865. Many people admired Lincoln's bravery, but many others—including Booth—passionately disagreed with the political and societal changes that he brought about.

The Civil War (1861–65) demanded all of Lincoln's energy as president. He studied military history and helped develop a strategy that eventually led his Union troops to win the war. Part of that strategy was the Emancipation Proclamation, which Lincoln issued on January 1, 1863. In it, he declared that slaves in the seceded states were "forever free." This statement inspired his troops, black and white, with a strong moral reason to continue fighting.

**I am mystery object \_\_\_\_\_**

**D.** I am more than just a rock. Someone spent a long time chipping away to give me sharp sides and a point. He needed me for his day-to-day chores, like cutting meat, animal hides, and plants.

I am old, dating back to the Paleolithic period (2.5 million to 10 thousand B.C.). Back then, objects like me were the most advanced form of human technology. Scientists today call the people who made me *Homo erectus*, the first humans to live outside of Africa.

**I am mystery object \_\_\_\_\_**

**F.** Hundreds of years ago in what is now Colombia artists became very skillful working with gold. They made me to show how they saw the natural world around them.

Besides being beautiful, though, I also had a practical purpose. I slipped onto a wooden rod or spear, probably helping the thrower get a good grip.

**I am mystery object \_\_\_\_\_**

**G.** You have probably seen and used machines that do what I do, but not ones that look like me. Even your grandparents would not remember me. I am that old!

My inventor, Alexander Graham Bell, and I share a distinguished place in the history of communication. On November 26, 1876, Bell used me to send voice messages from Cambridge to Salem, Massachusetts. I worked so well that he used me as the model for the first commercial telephone, introduced in the United States in 1877.

**I am mystery object \_\_\_\_\_**

**I.** I was more than some whimsical dragon that an artist dreamed up—I really existed! But I died long before you were around to see me fly overhead. I belong to a family of dinosaurs called Pterosaurs, the first and largest flying animals with backbones. While some were much bigger than me, others were as small as canaries.

You can see how my long fingers connect directly to my wings, giving me a lot of control when I fly. I can swoop down and pick up fish to eat, chomping them down with my powerful jaws and sharp teeth. I was quite a sight!

**I am mystery object \_\_\_\_\_**

**H.** I have a nose, eyes, and head but do not look like anyone you have seen. In fact, the artist who painted me, Pablo Picasso, never intended for this portrait to look exactly like its subject, a friend of his named Marie-Therese Waiter.

Picasso painted in a style called *cubism*, which he developed with another artist, Georges Braque. A cubist painting portrays the different ways in which the artist sees his subject—both with his eyes and in his imagination. Not all cubist paintings showed people. Some were of inanimate objects, like houses, or of plants and animals. Given all those possibilities, it might take you a while to figure out exactly what the subject is!

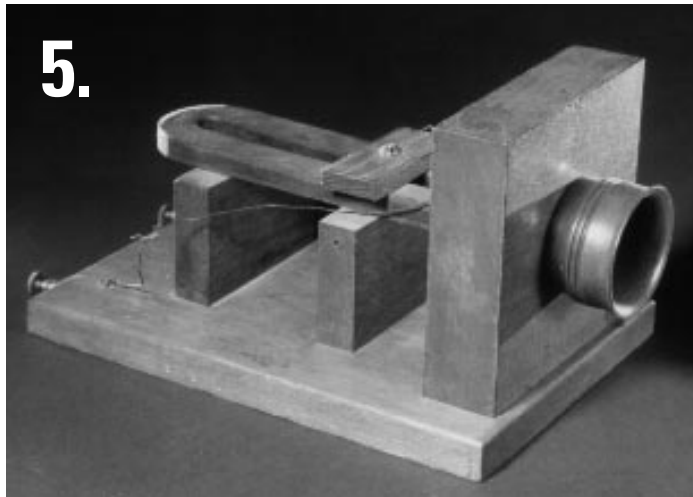
**I am mystery object \_\_\_\_\_**

**J.** I am unique because someone made me for a special child. I am made of red and blue wool cloth and am beautifully decorated with carved replicas of elk teeth. The person who made me was part of the American Indian tribe called the Crow. To them, elk teeth symbolized love and long life.

My people often gave pretty objects (like me!) to newborn children. The person who wore me was lucky to have such a beautiful gift, filled with love from the person who made it.

**I am mystery object \_\_\_\_\_**

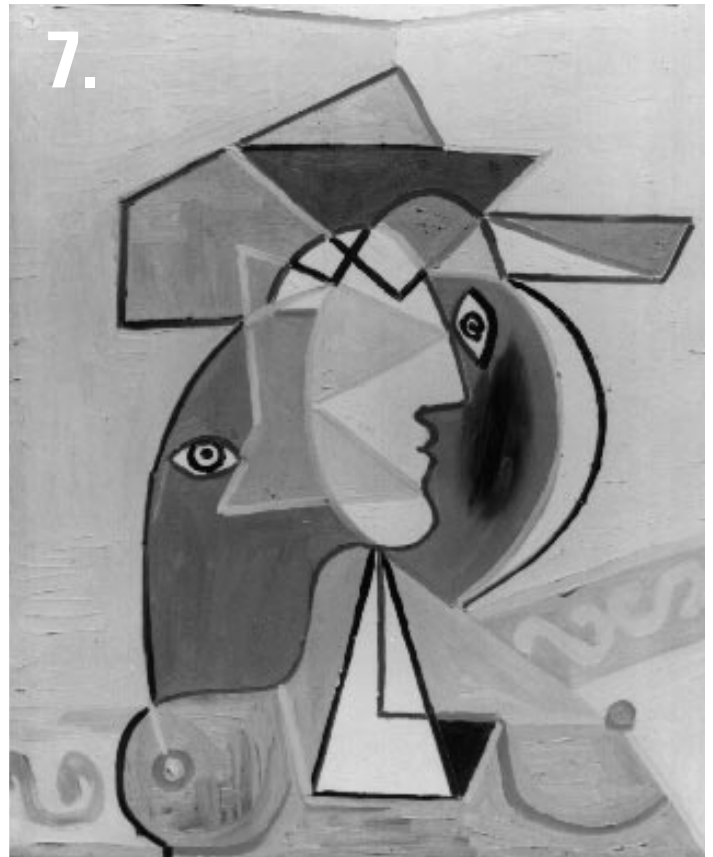
5.



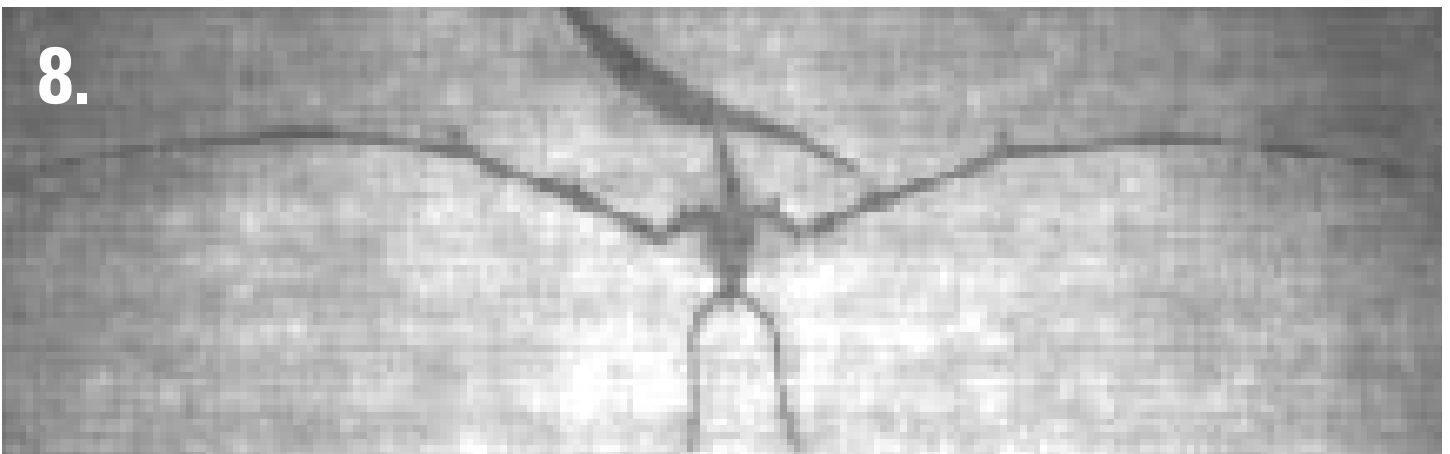
6.



7.



8.



# RESOURCES

**For more on the Institution and its birthday celebration events call Smithsonian Information (202) 357-2700 (voice) or (202) 357-1729 (TTY) Monday-Friday from 9:00 a.m. to 5:00 p.m., and weekends from 10:00 a.m. to 4:00 p.m. Write Smithsonian Information, Smithsonian Institution, MRC 010, Washington, DC 20560. The Smithsonian's Home Page address on the Internet's World Wide Web is <http://www.si.edu>**

**America's Smithsonian itinerary, 1996 (locations and dates subject to change):**

Los Angeles, California  
Los Angeles Convention Center  
February 9–March 7

Kansas City, Missouri  
H. Roe Bartle Hall  
April 10–May 19

City to be announced  
June 12–July 24

Providence, Rhode Island  
Rhode Island Convention Center  
August 17–September 19

City to be announced  
October 11–November 14

Houston, Texas  
George R. Brown Convention Center  
December 7–January 12, 1997.

*America's Smithsonian* will travel to six cities in 1997.

## BOOKS AND TEACHING GUIDES

### On the Smithsonian:

Bay, Ann Phillips. *Kids' Guide to the Smithsonian*. Washington, D.C.: Smithsonian Institution Press, June 1996, \$14.95. Call (800) 782-4612 to order.

CD-ROM interactive program on *America's Smithsonian*, published by Macmillan Digital U.S.A. and featuring full-color photography; animation sequences; and supplemental audio, video, and graphic elements, is available at exhibition sites and in retail stores for \$39.99.

The exhibition catalog, *America's Smithsonian: Celebrating 150 Years*, is available at exhibition sites, in retail stores, and by mail order at (800) 782-4612. Published by the Smithsonian Institution Press, the 288-page book is illustrated with 342 color photographs and costs \$45 clothbound, \$24.95 in paperback.

Crittenden, Alan, ed. *Hidden Treasures*. Novato, California: Union Square Books, 1985.

Dorn, Sylvia O'Neill. *The How-to-Collect-Anything Book: Treasure to Trivia*. New York: Doubleday, 1976.

Lewis, Shari. *Things Kids Collect: How to Become a Successful Treasure Hunter*. New York: Holt, Rinehart, and Winston, 1980.

Purcell, Rosamond Wolff, and Stephen Jay Gould. *Finders, Keepers: Eight Collectors*. New York: W.W. Norton, 1992.

Smaridge, Norah, and Hilda Hunter. *The Teen-Ager's Guide to Collecting Practically Anything*. New York: Dodd-Mead, 1972.

Tuchman, Mitch. *Magnificent Obsessions: Twenty Remarkable Collectors in Pursuit of Their Dreams*. San Francisco: Chronicle Books, 1994.

Villiard, Paul. *Collecting Things*. Garden City, New York: Doubleday, 1975.

## ELECTRONIC RESOURCES

The Smithsonian's World Wide Web home page (<http://www.si.edu>) offers a sampling of the Institution's vast collections. Materials of special interest to teachers are also available through the World Wide Web at <http://educate.si.edu/intro.html> and by file transfer from <ftp://educate.si.edu>

The World Wide Web Virtual Library of Collecting (<http://www.antika.com/collecting/index.html>) offers help to teachers and others interested in learning through objects and collecting. This site provides links to sites specializing in many collecting fields.

The World Wide Web Virtual Library of Museums (<http://www.comlab.ox.ac.uk/archive/other/museums.html>) offers a variety of links to museums around the world.

*Note: Due to the rapidly evolving nature of the Internet, some of the uniform resource locators (URLs) above may have changed since publication.*

## ACKNOWLEDGMENTS

Marcia Daft  
*Smithsonian Institution  
America's Smithsonian,  
150th Traveling Exhibition*

### Photographs

*Cover and photo 3  
on page 10*

Abraham Lincoln's top hat, mid-nineteenth century. Courtesy of the National Museum of American History, transferred by the War Department, January 25, 1902.

*Pages 4, 5*

Griffiths family keepsakes, all courtesy of the Anacostia Community Museum, bequests of the D. and J. Griffiths Estate, Harold Dorwin.

*Photo 1*

Gold finial, Monteria Dept. of Bolivar, Colombia, Courtesy of the National Museum of the American Indian, presented by Harmon W. Hendricks, 1920. Photo by Karen Furth.

*Photo 2*

Apollo space suit. Courtesy of the National Air and Space Museum.

*Photo 4*

Child's dress, Crow people, Montana, about 1875; wool cloth, bone, and animal hide. Courtesy of the National Museum of the American Indian.

*Photo 5*

*Photo 5*

Box telephone, 1876, invented by Alexander Graham Bell (1847–1922). Courtesy of the National Museum of American History, donated by the American Telephone and Telegraph Company, 1923.

*Photo 6*

Teapot, 1989, by Ralph Bacerra (born 1938), United States, glazed porcelain. Courtesy of the Renwick Gallery of the National Museum of American Art.

*Photo 7*

*Head*, 1934, by Pablo Picasso (1881–1973), oil on canvas. Courtesy of the Hirshhorn Museum and Sculpture Garden, bequest of Joseph H. Hirshhorn, 1981.

*Photo 8*

Pteranodon, a pterosaur, late Cretaceous period; flourished between 150 million and 70 million years ago (cast from an original skeleton). Courtesy of the National Museum of Natural History.

## ART TO ZOO

*Art to Zoo* is a publication of the Office of Elementary and Secondary Education, Smithsonian Institution.

This issue was written by staff members of the Office of Elementary and Secondary Education and translated by Sarita Rodriguez.

### Design/Cover Illustration

Karlic Design Associates, LLC  
Baltimore, Maryland

### Printing

The John D. Lucas  
Printing Company  
Baltimore, Maryland

### Publications Director

Michelle Knovic Smith

## ART TO ZOO ONLINE

This publication is available electronically through the Internet by anonymous file transfer from <ftp://educate.si.edu>. Follow the path [pub/publications\\_for\\_teachers/art-to-zoo](ftp://educate.si.edu/pub/publications_for_teachers/art-to-zoo). The World Wide Web site <http://educate.si.edu/art-to-zoo/azindex.htm> offers recent issues and supplementary materials in a hypertext format. Current and back issues (starting with spring 1993) are also available through America Online (keyword **SMITHSONIAN**).

# SUBSCRIBE TO *Art to Zoo*

For a free subscription to *Art to Zoo*, make a copy of this form and send it to Smithsonian Office of Elementary and Secondary Education / *Art to Zoo*, Arts and Industries Building 1163, MRC 402, Washington, DC 20560. Please print clearly.

Name

---

Address

---

ZIP

---

## Directions

Print clearly and include your ZIP code. Check ONE of the following boxes:

☐ This is my school (or other organization) address.

☐ This is my home address.

---

ian

Bulk Rate  
Postage and Fees Paid  
Smithsonian Institution  
G-94

Arts and Industries Building 1163  
MRC 402  
Washington, DC 20560

*Official Business*  
*Penalty for Private Use, \$300*