



SAN DIEGO ZOO
KIDS[®]

It Began with a Roar

100 Years of History at the San Diego Zoo

Teacher Resources & Activities

GRADES 3 TO 6



Taku | Polar Bear

First polar bear born at the Zoo, 1942

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The activities in this booklet follow the 5E Instructional Model developed through the Biological Sciences Curriculum Study (BSCS). The phases of the BSCS 5E-teaching sequence are Engage, Explore, Explain, Elaborate, and Evaluate. Generally, activity steps 1 through 5 align with these phases, and activities match to a grade level. However, activities can be adapted to any grade to complement in-classroom curriculum.

Like this activity guide? Go to sandiegozoo.org/teachersurvey for a quick, online feedback form. We appreciate your comments.

Welcome From Zookeeper

Rick Schwartz



Happy Birthday, San Diego Zoo!

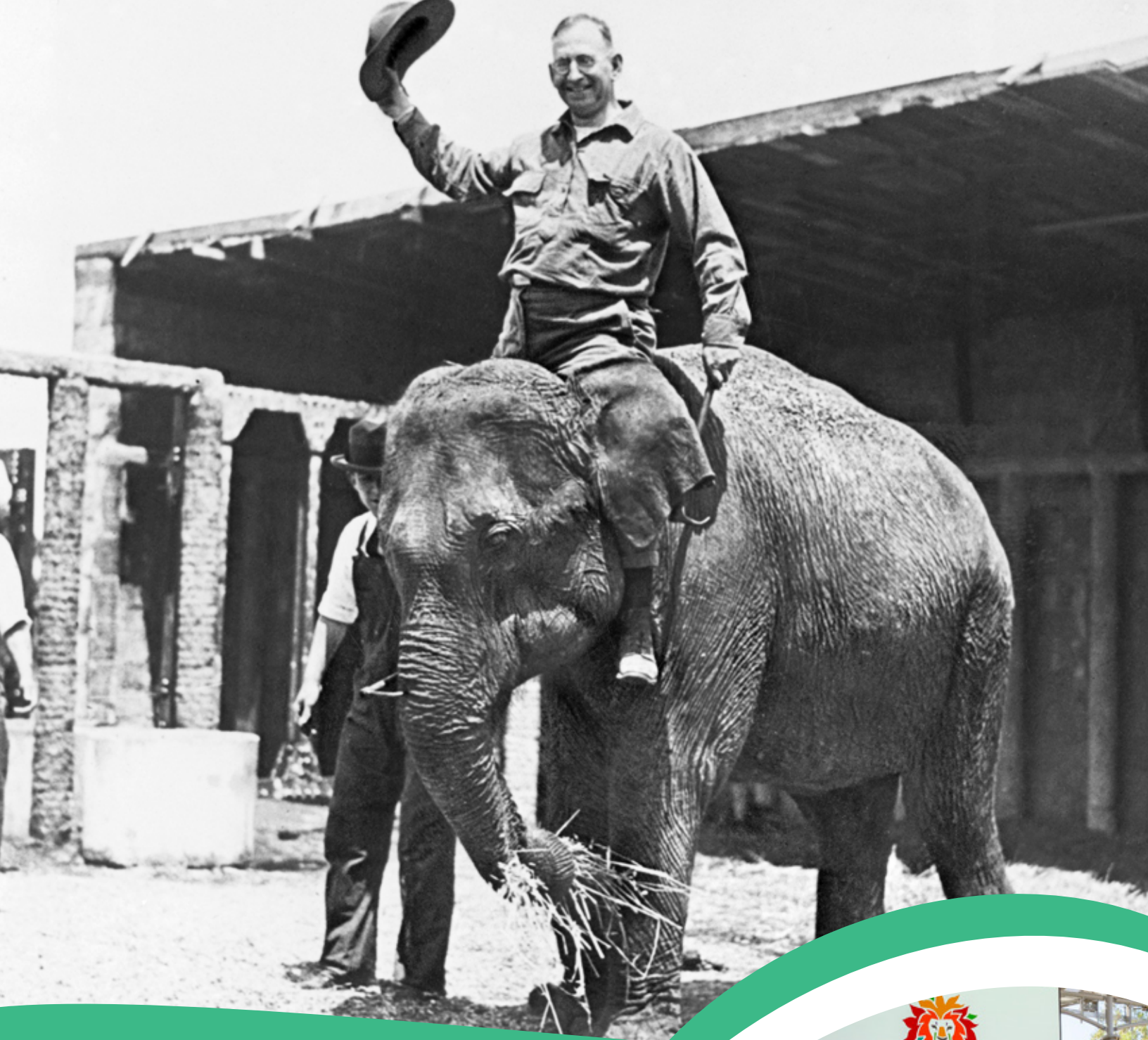
The San Diego Zoo celebrated its 100th birthday in 2016, and, boy, what a year we had! I was lucky enough to be at many events, helping to greet Zoo visitors and tell them all about the Zoo's fascinating history. Over the course of our yearlong celebrations, we had cake, puppets, songs, parades, and lots of fun.

I would have to say that my favorite part of the year was on October 2, our Founder's Day. We had thousands of friends, guests, and members show up to celebrate at the Zoo's Wegeforth Bowl, named after Dr. Harry Wegeforth. The celebration was truly amazing. Not only did we recognize the past 100 years, but we also joined San Diego Zoo Director Dwight Scott as he kicked off the next 100 years by rededicating the San Diego Zoo to the children of the world.

I feel very fortunate to have played a part in our Zoo's centennial. What began with a single lion's roar in 1916 is now echoed by thousands of voices—those from the awesome animals at the Zoo and from the people committed to saving them. We will carry our loudest roars forward into our next 100 years, with big plans and the audacious vision of fighting to end extinction. The San Diego Zoo has done so much for wildlife conservation and connecting people to the wonders of the natural world, I can't wait to see what the next 100 years bring.

Roaring Forward Campaign

We will work tirelessly to ignite a passion for wildlife in every child; to grow the Zoo's worldwide leadership in animal and plant care; and, with support from our local and global partners, save critically endangered species for future generations.



Dr. Harry Envisions Zoo

The San Diego Zoo began with a roar...literally. On September 16, 1916, Dr. Harry Wegeforth, a local physician, was driving back to his office with his brother, Paul, after performing surgery. As they drove past Balboa Park, Dr. Harry heard a lion roaring. The big cat was one of the animals left over from a small zoo exhibit in the 1915-1916 Panama California Exposition, which had closed earlier that year.

Dr. Harry always had an interest in animals, and he had wondered whether San Diego might someday have a zoo. In the bold and impetuous spirit that he would become known for, he turned to his brother and said, half jokingly and half wishfully: "Wouldn't it be splendid if San Diego had a zoo! You know...I think I'll start one." It was the beginning of something that perhaps even Dr. Harry couldn't have predicted.





Dr. Harry Wegeforth

Zoo Founder

BACKGROUND

Born in 1882, Harry Wegeforth grew up in Baltimore. In his youth, he was tightrope walker in a circus and worked as a cattle-roping cowboy. During his 20s, he became interested in medicine and visited hospitals in major cities across the US. After graduating from Baltimore Medical College as a surgeon, Wegeforth moved to San Diego and established his practice downtown in 1910.

ACCOMPLISHMENTS

It was on September 16, 1916 when Dr. Harry heard the roar of a lion that changed his life forever—and changed the history of San Diego. He and his brother, Paul, heard Rex, a male lion left over from the Panama-California Exposition. Dr. Harry, who had been thinking about starting a zoo said, “Wouldn’t it be splendid if San Diego had a zoo? You know...I think I’ll start one.”

In the years to come, Dr. Harry was founder, board director, manager, promoter, planner, and fund-raiser for his zoo. The governing board for the zoo, the Zoological Society of San Diego, began on October 2, 1916 with Dr. Harry as president.

Mrs. Belle Benchley

The Zoo Lady

BACKGROUND

Born in 1882, Belle Benchley grew up in San Diego after moving to the area with her family when she was 5 years old. Before joining the Zoo, Belle was a schoolteacher.

ACCOMPLISHMENTS

Belle Benchley was the world’s first woman director of a major public zoo. When she started out, she knew nothing about zoos—she just needed a job. She accepted a position as a temporary bookkeeper in 1925. Over the years, Belle found she wasn’t the best at bookkeeping, but she was quite good at other things. She was good at planning, and she learned many things about animals. By 1927, she was running the day-to-day operations as executive secretary of the Zoo. From there, she was soon promoted to Zoo director. And when Dr. Harry passed away in 1941, she confidently stepped in to lead. When she retired in 1953, she was widely known as “The Zoo Lady.”





Dr. Charles Schroeder

Mister Zoo

BACKGROUND

Born in 1901, Charles Schroeder grew up in Brooklyn, New York, and earned his degree in veterinary medicine from Washington State University in 1929. As a boy, he played in the rough streets of New York City and learned to swim in the polluted East River. He attended an ethical culture school that taught not only subjects like science and math, but also modeled ethics.

ACCOMPLISHMENTS

In 1932, Dr. Charles Schroeder joined the San Diego Zoo as its first full-time veterinarian. Then, during the next 20 years, he worked at the Zoo and at various research positions, until finally, in 1953, Charlie accepted the position of Zoo director after Belle Benchley retired.

Charlie helped develop the Zoo's veterinary hospital, flamingo exhibit, Skyfari, and the Children's Zoo. But he is best known for envisioning a new kind of zoo, one with large open areas where many animals lived together. For six years, he led efforts to open the Wild Animal Park (now the San Diego Zoo Safari Park), which opened in May 1972. Even though he retired later that year, he earned, in all respects, the nickname "Mister Zoo."

Dr. Kurt Benirschke

Science Innovator

BACKGROUND

Born in 1924, Kurt Benirschke grew up in Glückstadt, a town in northern Germany. He received his medical degree from the University of Hamburg, and moved to the United States in 1949. As a doctor at various hospitals on the East Coast, he specialized in the diagnosis of diseases (pathology), becoming interested in reproductive biology. In 1970, he moved to San Diego to join the faculty at the University of California, San Diego (UCSD), studying diseases and genetics.

ACCOMPLISHMENTS

In 1975, Dr. Kurt Benirschke founded the Center for Reproduction of Endangered Species, which is now called the San Diego Zoo Institute for Conservation Research. Along the way, he also started the Frozen Zoo®, pioneering the techniques to keep animals' cells alive for many years. Throughout his career, he has been a science innovator and a world-renowned expert in pathology, reproductive medicine, and genetics. He served as president of the Zoological Society of San Diego from 1997 to 2000.





Prince lived in the Zoo's first open-air grotto exhibits. He was a regal, handsome male lion with a dark, full mane. Many visitors were impressed when they saw him. He was the Zoo's "mane" man at the time.

Prince lived with Cleo and Queen, female African lions. He fathered 19 cubs in his lifetime, and he was a good dad. This was unusual, as wild male lions don't spend much time with their offspring.

Prince was patient with all of his cubs, often playing a gentle game of tug-of-war with them using his large chunks of meat, until the cubs realized the piece was too big for them and went in search of an easier meal.

Prince

African Lion, 1923



In 1924, Zoo director Tom Faulconer traveled to Australia by ship, in the hopes of bringing back native animals, including koalas. After arriving in Sydney, Australia, he was pleased to find he was able to take back many of the animals he wanted, just not koalas. But, at the last minute before setting sail, two large crates were delivered with the sign "Koala bears for the Children of San Diego, U.S.A." Inside were Snugglepote and Cuddlepie. The director of the Taronga Zoo in Sydney gifted them to Tom and the Zoo. On the voyage back home, the two koalas, named after characters in an Australian children's book, stayed with Tom in his cabin—a first-class, VIP experience.

Of course, Snuggles and Cuddles, as they were soon nicknamed, became celebrities at the San Diego Zoo as soon as they arrived in 1925. These two koalas started San Diego's ongoing love of koalas and the successful breeding colony that is at the Zoo today.

Snugglepote and Cuddlepie

Koalas, 1925



Diego

Galápagos tortoise, 1933

Over the course of two expeditions taken by Dr. Charles Haskins Townsend of the New York Zoological Society, one in 1928 and one in 1933, the San Diego Zoo received a herd of both young tortoises and some that were already full-sized adults. One of them was named Diego, from the Galápagos Island of Española. Visitors loved him, and marveled at his slow-moving ways and eating habits.

Diego lived at the Zoo until 1977. At that time, there was a crisis on the Galápagos Islands. A few years earlier, Diego's species was declared critically endangered. In order to save them, scientists gathered all the tortoises off the island (2 males and 12 females) and kept them at the Charles Darwin Research Station. But the scientists needed more males. So, the Zoo was glad to send Diego to help his species survive.

In fact, Diego is still alive today; he's 130 years old. And since 1977, he has fathered 1,700 offspring.



Sisquoc

California condor, 1983

Sisquoc hatched on March 30, 1983, and became the Zoo's first condor hatchling. This was a very important event, because there were only 22 California condors living in the entire world.

But, once hatched, the hard work of raising a condor chick began. Bird experts at the San Diego Zoo's bird breeding center devised a hand puppet looking like an adult condor. This way, the chick could be raised as naturally as possible and not imprint on humans.

Sisquoc, named after the Sisquoc Condor Sanctuary in Santa Barbara County, California, grew up healthy. In his lifetime, he fathered 17 chicks, including Saticoy (the first California condor chick to hatch while viewers watched on the Zoo's Condor Cam) and Cuyamaca (voted the Condor Cam star in 2013). Today, there are more than 160 California condors flying free and 400 in the total population: a big improvement from 22!



On July 27, 1987, the Zoo welcomed its first giant pandas—Basi, a female; and Yuan Yuan, a male. They came to visit on a special 200-day stay from their home at China's Fuzhou Zoo. Eight hundred people attended the welcoming ceremony and more than two million people saw them during their stay.

The Zoo built a special exhibit with separate areas for Yuan Yuan and Basi. This stay at the Zoo was a rare appearance of giant pandas outside their native country. It created "panda mania," with so many people saying how they liked watching them. The event also introduced people to this remarkable species in person, and called attention to the giant panda's endangered status.

Basi and Yuan Yuan

Giant panda, 1987



Fifteen-year-old Nola arrived at the San Diego Zoo Safari Park in 1989, one of two northern white rhinos that keepers hoped to breed. Although Nola's mate, Angalifu, was handsome (as rhinos are), the pair did not mate in the years they spent at the Park.

After Angalifu passed away, keepers paired Nola with a southern white rhino named Chuck. Both of them spent peaceful days lounging at the water hole. As time passed, Nola became one of only four northern white rhinos on the planet. Sadly, she died in November 2015 at age 41.

Nola was an iconic animal, not only at the San Diego Zoo Safari Park, but worldwide. Through the years, millions of people learned about Nola and the plight of rhinos in the wild through visits to the Safari Park, numerous media stories, and social media posts. Nola leaves a legacy that her keepers and animal care staff hope will continue to help rhino conservation for years to come.

Nola

Northern white rhino, 1989

GRADE 3

What Would You Do?

LEARNING OUTCOME

Students will develop and support their personal point of view in context to that of Zoo founder Dr. Harry Wegeforth. *Correlations to Common Core: RI.3.1, RL.3.6, W.3.1, and SL.3.1d*

INTRODUCTION

Throughout the course of history, inspired leaders made decisions that changed the lives of people around them. A few examples of such leaders who impacted the San Diego area include Juan Rodriguez Cabrillo discovering San Diego Bay on September 28, 1542; Father Junipero Serra arriving in 1769 to build Mission San Diego de Alcalá, the first Franciscan mission in the Californias; and Alonzo Horton traveling to San Diego in 1867 to purchase land next to San Diego Bay, which started downtown San Diego.

In 1916, the San Diego Zoo began with the roar of a lion, and the heartfelt decision of one man, Dr. Harry Wegeforth, who sought to build a place of wonder for the children of San Diego.

The story goes that, on September 16, 1916, Dr. Harry was driving back to his office with his brother Paul in the car. When they drove past Balboa Park, they heard a lion roaring among the animals left from the 1915-1916 Panama-California Exposition. Dr. Harry turned to his brother and said, half jokingly and half wishfully: "Wouldn't it be splendid if San Diego had a zoo! You know...I think I'll start one." And that's exactly what Dr. Harry did.

MATERIALS

- Copies of activity sheets 1, 2, and 3; one for each student.
- Pencils or pens.

ACTIVITY

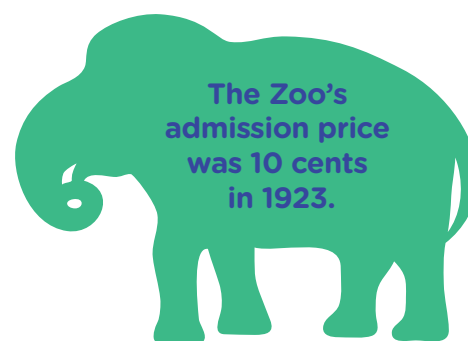
Step 1: Tell the students they will be going back in time to the early 1900s, and the events that happened in San Diego at that time. Ask the students the following questions to prompt discussion: "What do you think life was like in the early 1900s?" "How did people travel?" "How did they talk to each other?" "What kind of work did they do?"

Step 2: Distribute the *What Would You Do? activity 1* reading sheet and the *What Would You Do? activity 2* activity sheet. Tell the students to pair up and read the story to each other. After reading the story, show the students how to write their comments on the *What Would You Do activity 2* sheet. Students should Think-Pair-Share about what their life would have been like during this time.

Step 3: As a class, read aloud the one-paragraph narrative about the Panama-California Exposition closing, and the animals that remained behind. As a class, discuss the facts in the story, exploring possibilities of what to do with the animals.

Step 4: Distribute the *What Would You Do? activity 3* writing sheet to each student. Ask the students to write an original opinion piece about coming upon the animals that were living at Balboa Park after the Panama-California Exposition. Use the focus question: "What would you do?" The essay should include at least three details that support their decision. Students may elaborate their story with illustrations.

Step 5: When ready, invite the students to read their essays. This can be done in their working pairs, or as a whole class. Encourage the students to find similarities among the essays. Did some students make the same decisions?



What Would You Do? ► activity 1

Instructions:

Read the first passage about San Diego in the early 1900s and discuss within your group. Read the last passage aloud as a class.

No cellphones, no TV, no internet? No way! But this WAS true in the early 1900s in San Diego.

In 1915, only 50,000 people lived in the city of San Diego. The phone was a new invention. And people had been driving cars for only a few years.

Things were different back then. Many streets were mud lanes with no paving. Most people traveled in carts pulled by horses. People worked as farmers, fishermen, and shop owners.

San Diego hosted a big event in 1915 and 1916. It was called the Panama-California Exposition, and it celebrated the opening of the Panama Canal in Central America. The 48-mile canal connected the Pacific Ocean with the Atlantic Ocean. The first

port on the Pacific side was San Diego. It was a great tourist spot.

After five years of planning and building, the exposition opened. Adults paid 50 cents to get in. Children paid 25 cents. You could see animals, museums, and performance acts. You could listen to music and eat good food. In 1916, an ice rink was added! More than 2 million people visited in 1915, with another million and a half in 1916.

Today, you can still see some of the things that were built in those early years, including the Cabrillo Bridge, California Bell Tower, Botanical Building, Fine Arts Building, and Spreckels Organ Pavilion.

READ ALOUD TOGETHER AS A CLASS

At the close of the exposition, the company that had been in charge of the animal exhibits left, leaving behind just a few caretakers.

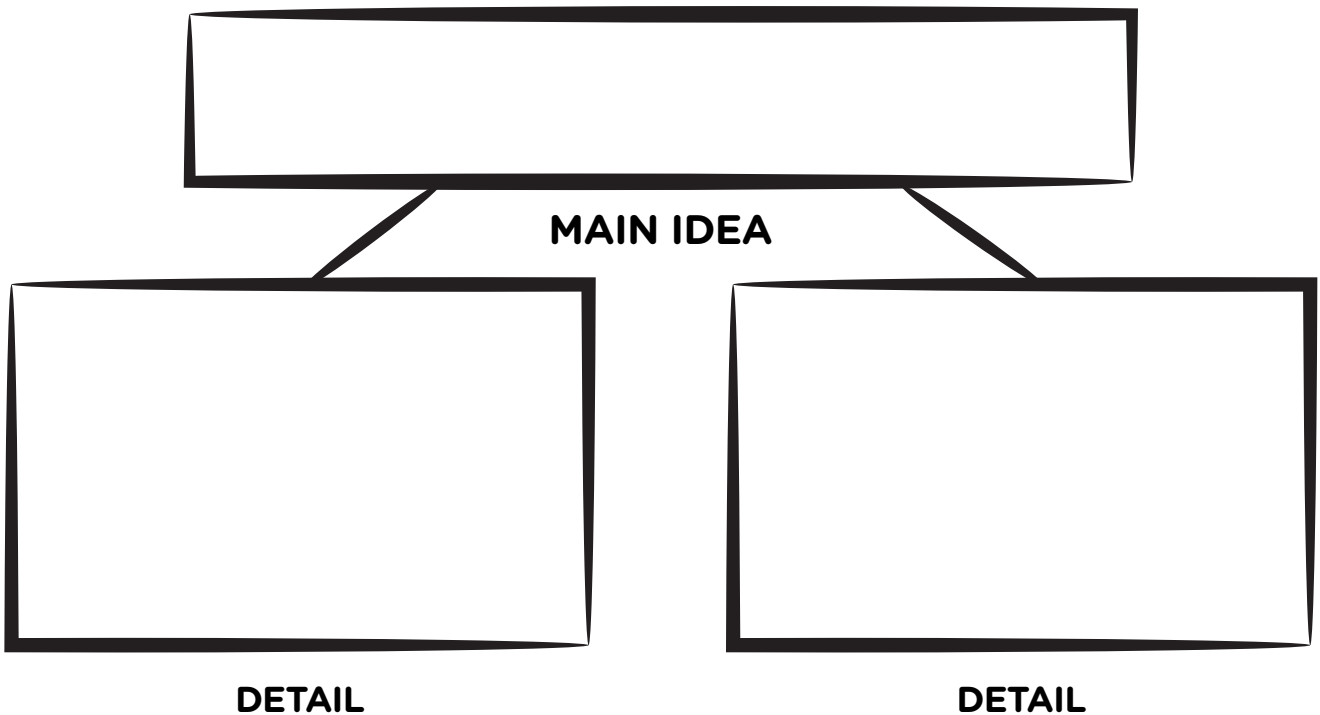
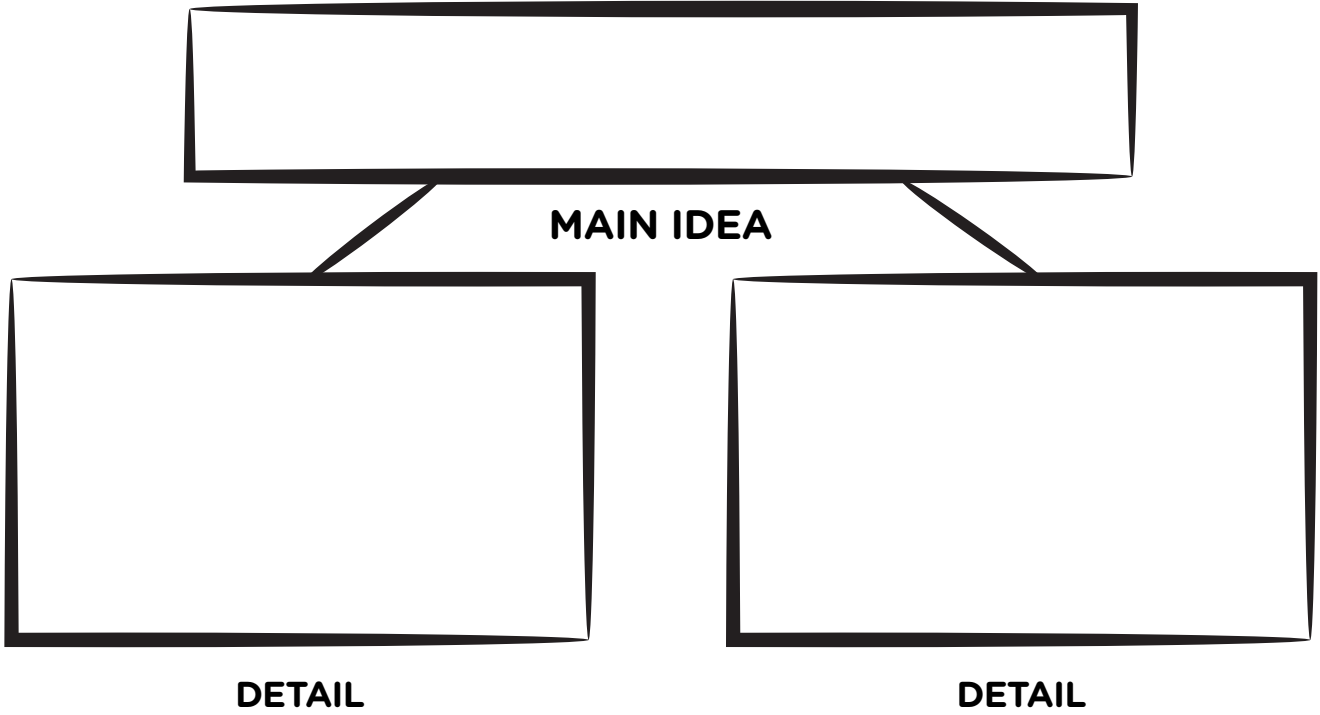
Among the long row of cages along what is now Park Boulevard, wolves, coyotes, bears, monkeys, lions, and a few other small species lived. Bison, elk, and deer roamed the open spaces in Balboa Park.

The city was supposed to take care of the animals, but city managers were looking for a way to get rid of them. That's when Dr. Harry stepped up and said he would keep the animals as the beginning of the new San Diego Zoo.

What Would You Do? ► activity 2

Instructions:

After reading about San Diego in the early 1900s, write two main ideas and two supporting details for each one.



GRADE 3

What Would You Do? ► activity 3



Instructions:

Pretend you are at Balboa Park and hear the roar of a lion. What would you do with the animals that were living in Balboa Park after the close of the exposition? Include at least three details that support your choice.



A series of horizontal lines for writing the response.

GRADE 3

Healthy Homes

LEARNING OUTCOME

Students apply animal husbandry principles to create a zoo home for an animal of their choice.
Correlations to Common Core: RI.3.3 and W.3.3

INTRODUCTION

Domesticating wild animals started long ago; some scientists have estimated as early as 8000 BC. As people began to gather together in villages, they collected animals, too, mostly for food and clothing needs. Then, as civilization advanced, people began collecting animals for display. Menageries were created so that people could see exotic animals and plants. From there, the modern zoo evolved. Common to all these steps—from keeping animals as livestock to keeping animals for display only—is the need to understand the lifestyles of animals. What does the animal need in order to survive? To be healthy, an animal needs access to food and water, space to move, objects to explore, and interactions with other animals.

MATERIALS

- Copy of zoo enclosure photos, pages 15 and 16, one per student group
- Copy of *Healthy Homes* activity sheet, one per student
- Pens or pencils
- Blank paper, one per student
- Colored pencils
- Access to the internet, library, or other resources for additional information
- Whiteboard or writing surface.

ACTIVITY

Step 1: Begin the activity with a brainstorm session about how we take care of our pets at home. Begin with prompts: “How do you take care of a pet dog or cat?”, “What do animals need to survive?”, and “How could you provide these things in a zoo home?” As the students express their opinions, write them on the whiteboard

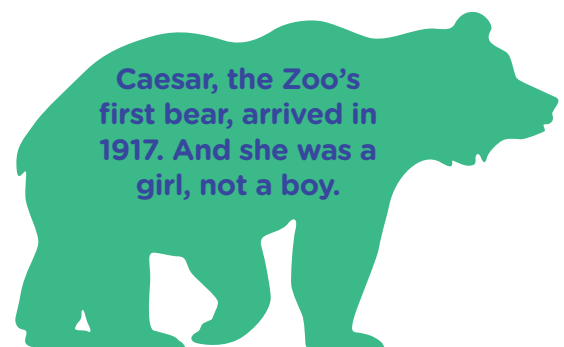
or writing surface. Before concluding, circle the items that animals need in order to survive: food, water, space to move, objects to explore, and interactions with other animals.

Step 2: Divide the class into student groups. Distribute the copies of the enclosure pictures, pages 15 and 16. Ask the students to study the two pictures, and discuss the design of the enclosures. Can they identify some of the items they listed during the brainstorm session? Does one enclosure look like it provides more for the animals than the other? Share student ideas as a class.

Step 3: Next, tell the students to each choose an animal (wild or domesticated), and imagine themselves as zookeepers. Distribute the *Healthy Homes* activity sheet. Students need to write, in sequence, how they would build an enclosure for their animal, what items they would include and why, how their animal would live in the enclosure, and the daily care provided to promote physical and mental health. Allow time for the students to research their animal, if needed.

Step 4: Tell the students that creating an enclosure for animals is not easy and requires planning. Review the activity sheets to see if the students were able to plan for all the animal’s needs. Modify activity sheets as needed, so that every student’s sheet is complete.

Step 5: Finally, distribute the blank paper and colored pencils to the students. Using the information on their activity sheets, ask the students to draw their enclosure with their animals, and label the items provided for care. When complete, ask the students to share their creative products. They can post the papers around the classroom to create a zoo of their own.



Healthy Homes ► activity

Instructions:

Think about all the steps you need to take in order to plan and build an enclosure for an animal. Put them all in sequence here.

A sequence of 9 numbered boxes arranged in three rows of three. Each box is connected to the next by a right-pointing arrow. The boxes are numbered 1 through 9 in order from left to right, top to bottom. The boxes are empty, intended for students to write steps for planning and building an animal enclosure.





GRADE 4

A History of Great Leaders

TEACHER RESOURCES
Visit kids.sandiegozoo.org/curriculum
to find this curriculum in a PDF format.

LEARNING OUTCOME

Students apply leadership styles to write and deliver a persuasive speech. *Correlations to Common Core: W.4.1, W.4.7, and SL.4.4*

INTRODUCTION

During its 100-year history, the San Diego Zoo has flourished under the outstanding leadership of dedicated people. This activity highlights four of these leaders and their accomplishments: Zoo founder Dr. Harry Wegeforth, Zoo director Belle Benchley, founder of the San Diego Zoo Safari Park Dr. Charles Schroeder, and founder of the San Diego Zoo Institute for Conservation Research Dr. Kurt Benirschke. Each leader had an individual style and achieved success in his or her own way, but together they created the world-famous Zoo as it is today.

MATERIALS

- Copy of the Zoo leader cards, pages 4 and 5, one set of four for each student group
- Writing paper or journal, one per student
- Internet access to sandiegozoo.org
- Access to the internet, library, or other resources for additional information.

ACTIVITY

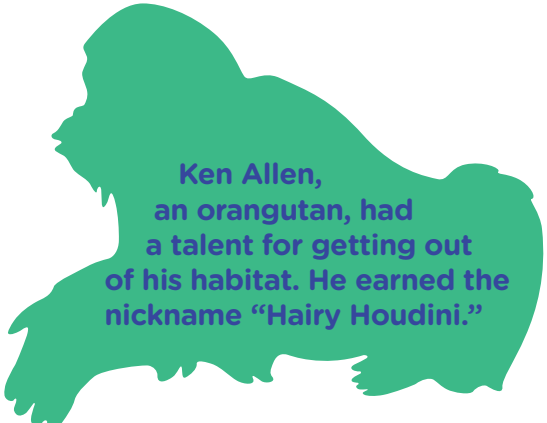
Step 1: Introduce the students to the San Diego Zoo by showing the website sandiegozoo.org, clicking on a few of the live cams, and showing some of the videos. Ask the students if they have visited the Zoo. If so, what do they remember, and what were their impressions? Finally, ask the students to think about how the Zoo got to be the way it was today.

Step 2: Divide the class into student groups of four, and distribute copies of the Zoo leader cards. Tell the students to read the cards, discussing the accomplishments of each of the Zoo leaders. Within each student group, have each student choose one of the four leaders.

Step 3: As a class, briefly review each of the Zoo leader cards, asking for student feedback from their group discussions.

Step 4: Tell the students they will step into their chosen leader's shoes, becoming him or her during the time period when they lived. The task is to write a persuasive speech to gain support or funding from the community for their project within that time period in California. Students need to identify whom their leader is talking to for the speech. If needed, allow time for additional research using sandiegozoo.org, sandiegozoo100.org, or other websites or books. Students should work cooperatively in their groups to provide peer review of the speeches.

Step 5: Once speeches are ready, ask a student pair to role-play, giving the persuasive speech. Students can Pair-Share their speeches first to practice in their groups, and then present the speech to the class.



Ken Allen,
an orangutan, had
a talent for getting out
of his habitat. He earned the
nickname "Hairy Houdini."



GRADE 4

Shining Animal Stars

LEARNING OUTCOME

Students create a fictitious event of diplomacy between themselves and another country using information gathered about their animal ambassador. *Correlations to Common Core: RI.4.3, W.4.1, W.4.9*

INTRODUCTION

Throughout history, animals—from rare and unusual to commonplace—have played a role in diplomatic gift giving between countries. For example, China has offered its beloved giant pandas to a number of countries, including the US, so often that the action has become known as “panda diplomacy.” Other examples include the Taronga Zoo in Sydney offering two koalas—Snugglepot and Cuddlepie—to the San Diego Zoo in 1925, and gifting of platypuses to Britain and the US in 1943 and 1947.

Although dogs, giraffes, elephants, and even tigers have been traded in the past, the popularity of gifting animals has fallen. Today, the focus is on conservation, as countries collaborate to save endangered species worldwide.

MATERIALS

- Copy of Snugglepot and Cuddlepie animal card, page 6, one per student
- Map of California (or map of your state), posted or projected for the students to see
- Access to the California Department of Fish and Wildlife web page dfg.ca.gov/wildlife/nongame/genplantsanimals.html for a list of animals in California. The DFW also has animal lists for other states.
- Copy of *Animal Stars*, one per student group
- List of San Diego’s sister cities (or sister cities of your town)
- Blank writing paper or journal, one per student
- Whiteboard or writing surface.

ACTIVITY

NOTE: This activity is written with a focus on San Diego. Another city can be easily substituted to fit your location.

Step 1: Begin activity by distributing the Snugglepot and Cuddlepie animal card. Either as a class or in student groups, read the card and examine the picture. Ask the students, “What was the purpose of giving koalas?” “Why did the Taronga Zoo choose koalas?” “Why did Tom Faulconer want koalas?”

Step 2: Next, show the map of California and ask the students, “What native animals live in California?” Write responses on the whiteboard or writing surface, with the goal of listing at least 10 native animals. To get started, share California’s state animals: grizzly bear, California quail, golden trout, garibaldi, and gray whale. To continue, introduce animals that live only in California: Tule elk, San Francisco garter snake, Ridgway’s rail, and California newt. You can refer to the Department of Fish and Wildlife’s list under “Materials,” if you need additional animals.

Step 3: Divide the class into student groups, and ask each group to adopt an animal from the list on the class whiteboard. Distribute *Animal Stars* activity sheet to each group. Tell the student groups the sheet will help them research their animal. Allow time for the students to use the library or access internet resources to gather the information. Students can also collect pictures of their animals.

Step 4: Next, read the list of San Diego’s sister cities and the zoos. Explain that San Diego participates in Sister Cities International, an organization that began in 1956. It was founded under then President Dwight D. Eisenhower, who believed that twinning cities and connecting people at the community level would forge strong international relations and build trust, which would result in a more peaceful world. Ask student groups to choose a sister city with which to exchange animals.

Step 5: Distribute the blank writing paper or journals, and ask the student groups to write a story about traveling to meet people at their sister cities to exchange their native animals. Student groups can role-play the story and show pictures of their animal ambassador.

GRADE 4

Animal Stars ► activity

Instructions:

Choose an animal that lives in California. Use the internet or other resources to find this information

A partial list of San Diego's sister cities and the year they joined:

Campinas, Brazil (since 1995), zoo is Parque Bosque dos Jequitibás
Cavite, Republic of the Philippines (since 1969), zoo is Paradizoo
Edinburgh, Scotland (since 1977), zoo is Edinburgh Zoo
Leon, Mexico (since 1969), zoo is the Leon Zoo or Zooleon
Perth, Australia (since 1986), zoo is Perth Zoo
Tijuana, Mexico (since 1993), zoo is Parque Morelos Zoo
Warsaw Province, Poland (since 1996), zoo is the Warsaw Zoological Garden
Yokohama, Japan (since 1957), zoo is Nogyama Zoological Gardens and ZOORASIA

DESCRIBE YOUR ANIMAL

- appearance
- weight
- height

WHERE DOES YOUR ANIMAL LIVE?

- location
- habitat
- diet
- predator

WHAT IS ITS HISTORY IN CALIFORNIA?

WHAT IS ITS POPULATION STATUS?

GRADE 5

Surviving in Slim Times

LEARNING OUTCOME

Using a graphic organizer, students analyze the effects of the Great Depression on the organization and maintenance of the Zoo from 1929 to 1941. *Correlations to Common Core: RI.5.3, W.5.2, W.5.2c*

INTRODUCTION

Black Thursday is a day to remember. On October 24, 1929, the United States stock market collapsed. The Dow Jones Industrial Average opened at 305.85 and promptly dropped 11 percent as investors panicked and sold their stock. The banks did not have enough cash to pay all the stockholders; some only received 10 cents on the dollar. This event triggered a 10-year period of difficult economic recovery, now known as the Great Depression. The stock market recovery took longer; it wasn't until November 23, 1954 that the Dow Jones reached its former high of 381.17 that occurred on September 3, 1929.

Herbert Hoover was president when the stock market crash happened. He believed that the crash was part of a passing recession and refused to involve the federal government for support. When Franklin D. Roosevelt was elected president in 1933, he immediately began passing legislation to start programs designed to get the US economy back on track. One of these was the Works Progress Administration (WPA), a permanent jobs program that employed 8.5 million people from 1935 to 1943. At the San Diego Zoo, funding from the WPA helped create Fern Canyon (still open), Dog and Cat Canyon (now part of the new Africa Rocks exhibit), and an aviary for birds of prey (now Retile Mesa).

MATERIALS

- Copy of *Surviving in Slim Times* activity sheet, one per student
- Access to the internet, library, or other resources for additional information
- Access to timeline.sandiegozoo100.org
- Blank writing paper or journal, one per student
- Whiteboard or writing surface.

ACTIVITY

Step 1: Begin this activity by writing “Great Depression” on the whiteboard or writing surface. Ask the students what they know about this time, from about 1929 to 1941, the beginning of World War II for the United States. Ask leading questions such as, “What happened during this time?” and “Why is it called the Great Depression?” Record student responses on the board, creating a concept map linking common thoughts about the stock market, personal hardship, or government agencies regulating banks and federal aid.

Step 2: Distribute the *Surviving in Slim Times* sheet. Using the library or resources on the internet (xroads.virginia.edu/~1930s/front.html is helpful), ask the students to collect information to fill in the graphic organizer. Keep the box titled “Happenings at the Zoo” empty. Students may work alone or in groups.

Step 3: Show students the web page sandiegozoo100.org/1935/19341935/ and read the paragraph aloud. This highlights some of the efforts the Zoo director, Dr. Harry Wegeforth, made to keep the Zoo open during the Great Depression. On the graphic organizer, have the students fill in the “Happenings at the Zoo” box.

Step 4: Distribute the blank writing paper or journals. Using the information gathered on the graphic organizer, ask the students to write a personal essay expressing their views and opinions of the Great Depression. Use prompts such as, “How would you feel if you lived during that time?” “What would you do to help if you worked at the Zoo?” Students may draw pictures for their essay, too.

Step 5: Ask the students to share their essays, either in small groups or as a class.

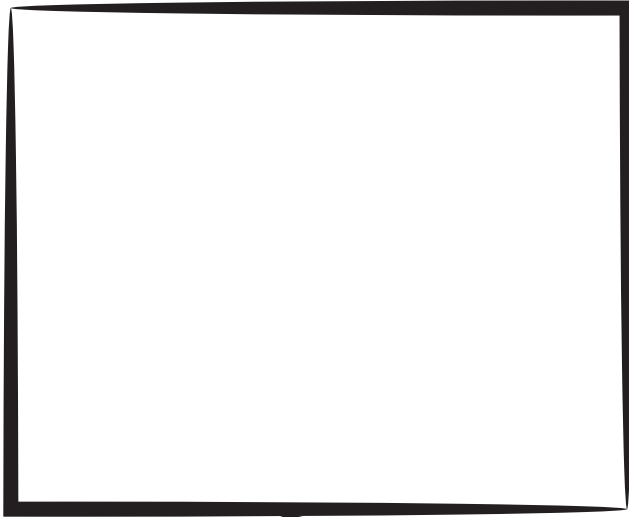


Surviving in Slim Times ▶ activity

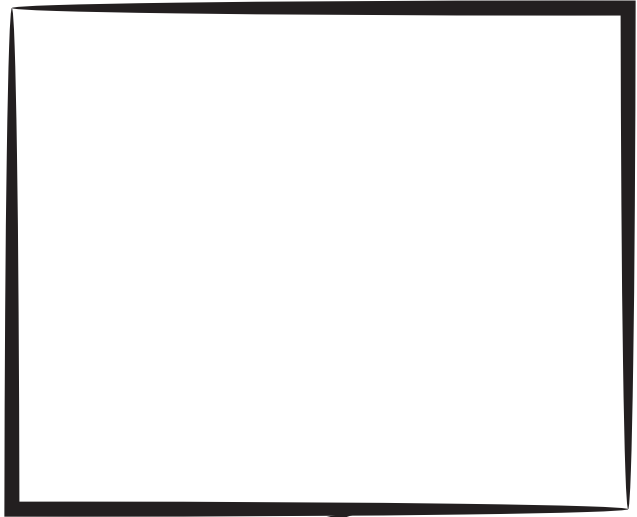
Instructions:

Write your comments in the boxes below.

**EVENTS IN THE
UNITED STATES**



**HAPPENINGS
AT THE ZOO**



**GREAT DEPRESSION
1929-1941**



**PRESIDENT'S
PROGRAMS TO
HELP PEOPLE**



**WHAT
CAUSED
THIS?**

GRADE 6

You Belong at the Zoo!

TEACHER RESOURCES
Visit kids.sandiegozoo.org/curriculum
to find this curriculum in a PDF format.

LEARNING OUTCOME

Students synthesize researched information to create a call-to-action conservation message for a 30-second public service announcement.
Correlations to Common Core: RI.6.8, W.6.4, W.6.8

INTRODUCTION

Humans have been collecting and keeping animals for thousands of years. Long-ago kings and emperors kept exotic animals—such as tigers, elephants, and giraffes—as symbols of power and prestige. Menageries, popular in the 1700s, brought seldom-seen animals together for the general public's entertainment. Today, zoos play a critical role in animal conservation, both in education and in the propagation of endangered species.

The first attempts to keep and maintain wild and exotic animals in managed care happened in Egypt, China, and India as early as 3000 BC. From then to the present, animal collections evolved from those kept by private individuals to those managed by commercial companies or nonprofit organizations.

MATERIALS

- Copy of *You Belong at the Zoo! activity 1*, one per student
- Access to the internet or other resources for additional information
- Copy of *You Belong at the Zoo! activity 2* planning sheets, double-sided, one per student group
- Blank writing paper or journal, one per student
- Whiteboard or writing surface.

ACTIVITY

NOTE: *This activity asks the students to create a 30-second video. A general guideline for video production is two class periods per 30 seconds of video. You are welcome to modify this lesson to fit your time needs.*

Step 1: Begin the activity with a brainstorm session focused on the question, “When did zoos begin?” As the students discuss this question and try to reach an answer, encourage them to define “what is a zoo?” and “what is a zoo’s purpose when they first start? Is their purpose the same today?”

Step 2: Distribute the *You Belong in the Zoo! activity 1* sheet to the students. Divide the class into student groups. Ask each group to read the informative essay and discuss the ideas presented. Allow the students to work together to answer the questions at the bottom of the sheet.

Step 3. As a class, discuss the ideas generated in the student groups. Ask how animal collections (called zoos today) have changed. Students will share their thoughts from the completed activity sheet and discuss species in danger of extinction today. Are any animals that were in Egyptian collections extinct today?

Step 4: Ask each student group to choose an animal, and use resources from the library or internet to research its current status and where it lives in zoos. Using the *You Belong at the Zoo! activity 2* planning sheets, student groups will write their 30-second message and select visual images. Students can create their 30-second public service announcement (PSA) either using video or a poster/print advertisement.

Step 5. When the student groups are ready, ask them to share their creative products with their classmates. Discuss which presentations are more persuasive than others. What makes them this way?



You Belong at the Zoo! ▶ activity 1

Instructions:

Read the story about animal collections in Ancient Egypt and answer the questions below.

What do you think of when you imagine ancient Egypt? Maybe a dry landscape; blowing sandstorms; long, tiring trips on camelback; and not much food? Actually, life back then was a little better than that.

The Nile River that winds through Egypt brought water and life to the surrounding lands. Many cities and villages were located near the river. Cairo, along the Nile River, and Alexandria, a port on the Mediterranean Sea, are some of the most famous.

Wealthy Egyptians could afford to live in big houses; have shady, cool gardens; and collect and keep wild animals. These animal collections were called menageries. Lions, leopards, antelope, gazelles, monkeys, many different birds, and even giraffes were gathered together. Having

a menagerie to show off meant that you had power and money. Most people could not visit the menagerie; you had to be invited.

Historical documents are not clear as to who took care of the animals. There were veterinarians, but they practiced both human and animal medicine. Records show some animals died of starvation or had broken bones. It seemed more important to show the animals, rather than keep them alive for a long time.

When the Romans conquered Egypt in 30 BC, Alexandria had the most varied animal collection in the ancient world. It is believed that many of the animals in the menageries, like lions, were later used in the animal fights held in the Roman Colosseum.

Why did wealthy Egyptians gather animals together? What was the purpose?

How is this purpose different from the purpose of zoos today?

You Belong at the Zoo! ▶ activity 2

Our Video _____ Planning Sheet
(title)

OUTLINE:

What is your animal?

What zoo has the animal?

What conservation projects are they doing?

What is the message you'd like to tell people?

SCRIPT:

Write the words that will appear (or be said) in your video.

GRADE 6

You Belong at the Zoo! ▶ activity 2

STORYBOARD:

Draw a picture of each scene, and tell how long that scene will show in the half-minute (30-second) video.

Make a list of ALL the materials you need to produce the video.

FILMING:

Where will I film my video? Who will be there? Who will be the actors? Who will be the filming crew?

EDITING:

How will I edit my video? List all equipment needed.

PUBLISHING:

How will I show my video to others? List all equipment needed.

GRADE 3-6

Read All About It!

LEARNING OUTCOME

Students plan, write, design, and produce a newsletter for a zoo.

INTRODUCTION

The first issue of ZOONOOZ, the magazine published for the members of San Diego Zoo Global, debuted in January 1926. The name, ZOONOOZ, is a palindrome; that is, a word that can be read the same way backward and forward.

From its modest eight-page start, ZOONOOZ has grown to become the voice of the animals, staff, volunteers, donors, and members of the San Diego Zoo and the Safari Park. It is sent to more than 250,000 members, and read around the world.

It takes skill and dedication to create each issue. The ZOONOOZ publishing staff includes the managing editor, an associate editor, three staff writers, a copy editor, a designer, two photographers, and six people who work in production.

MATERIALS

- Copy of the Zoo leader cards, pages 4 and 5, one set for each student group
- Copy of the historic animals cards, pages 6 to 8, one set for each student group
- Access to the internet or other resources for additional information
- Copies of ZOONOOZ, available at libraries or online, a couple for each student group
- Access to zoonooz.sandiegozoo.org
- Whiteboard or writing surface.

ACTIVITY

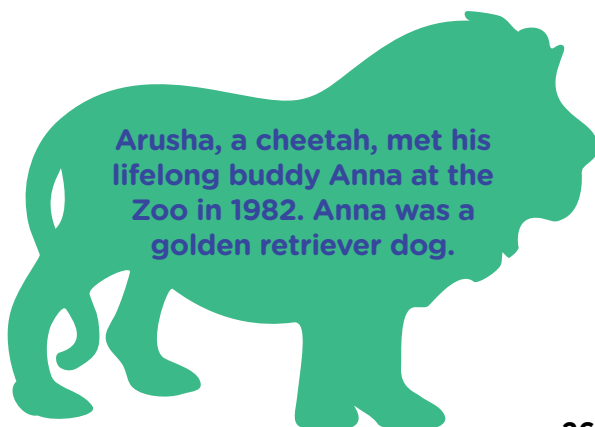
Step 1: Divide the students into groups and distribute the print copies of ZOONOOZ, or have students read issues online using tablets or iPads. On the whiteboard or writing surface, start a concept map with ZOONOOZ in the center. Ask students to read and analyze the issues, searching for common sections of the magazine. Is there always a Chairman's Note? What kinds of ads or event announcements are there? What kinds of articles are included? As you fill the concept map, discuss what skills a person needs to create that section or topic.

Step 2: Tell the student groups that they will step into the shoes of the news staff, and create a publication of their own. First, ask the student groups to brainstorm the content of their newsletter, using the concept map on the board as a guide. Items in a newsletter include articles, ads, calendars, editor's letter, pictures, and event announcements. As the list is developed, the students in the group will be asked to volunteer for such roles such as writer, editor, photographer, and designer.

Step 3: Allow the students to access the internet, library, or other resources to find information and pictures for their articles. As writers and photographers produce copy and pictures, the editor reviews, adds comments, and begins the layout for the newsletter. The goal of this stage is to produce a draft of the newsletter. **OPTIONAL:** Use a field trip to the Zoo to take animal pictures and gather information from the interpretive graphics and volunteers at the exhibits.

Step 4: When the student groups are ready, ask them to share their drafts of the newsletter. This is a stage where everyone can add suggestions and provide input. With these new comments, the student groups should work to finish their newsletter.

Step 5: As a class, share newsletters the student groups produced. Use the concept map as a reference point. Did some newsletters add new sections? Did all newsletters have all sections?



Resources

ONLINE

Visit these web pages to learn more about:

The history of the San Diego Zoo
sandiegozoo100.org

Animals at the San Diego Zoo today
zoo.sandiegozoo.org

Animals at the San Diego Zoo Safari Park
sdzsafaripark.org

Programs for school groups
zoo.sandiegozoo.org/content/overview

Animal conservation
institute.sandiegozoo.org
endextinction.org

ZOONOOZ
zoonooz.sandiegozoo.org

History of Balboa Park
balboapark.org/about/history

READING LIST

It Began with a Roar by Dr. Harry Wegeforth and Neil Morgan

My Life in a Man-made Jungle by Belle Benchley

The Zoo Lady, Belle Benchley and the San Diego Zoo by Margaret Poynter

Mister Zoo: The Life and Legacy of Dr. Charles Schroeder by Douglas G. Myers

Zoo and Aquarium History, Ancient Animal Collections to Zoological Gardens edited by Vernon N. Kisling, Jr.

Glossary

Great Depression. Period of time (1929 to 1939) when the United States economy fell, industry output declined, investors in the stock market lost money, and unemployment stood at 20 percent.

husbandry. The care and management of plants and animals within a zoo, aquarium, or botanical park.

menagerie. A collection of wild animals used for display.

Panama-California Exposition. An event held in San Diego in 1915 and 1916 to celebrate the completion of the Panama Canal.

Panama Canal. Opened on August 15, 1914, this channel cuts through the Isthmus of Panama to connect the Pacific Ocean to the Atlantic Ocean. It is a key passageway for worldwide shipping trade. The 48-mile canal connected the Pacific Ocean to the Atlantic Ocean.

San Diego Balboa Park. Established in 1868 as “City Park,” the lands were renamed Balboa Park for the Panama-California Exposition. The 1,200-acre park houses 17 museums and cultural institutions.

San Diego Zoo Founder’s Day. This day commemorates October 2, 1916 when Dr. Harry Wegeforth and his brother joined three fellow animal lovers to form the Zoological Society of San Diego. The San Diego Zoo and the San Diego Zoo Safari Park currently celebrate the day with the month-long event “Kids Free,” where admission for children 11 and younger is free.

Sister Cities International. A nonprofit organization dedicated to strengthening the partnerships between cities in the United States and those abroad, as a means for cultural exchange.

Works Progress Administration. Created under the presidency of Franklin D. Roosevelt, this federal program promoted the creation of public works jobs for the unemployed during the Great Depression.

ZOONOOZ. The membership magazine for San Diego Zoo Global.



Connection to Common Core Standards

The materials and activities presented in this guide are just one step toward reaching the standards listed below.

GRADE 3

What Would You Do?

Common Core

- RI.3.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
- RL.3.6 Distinguish their own point of view from that of the narrator or those of the characters.
- W.3.1 Write opinion pieces on topics or text, supporting a point of view with reasons.
- SL.3.1d Explain their own ideas and understanding, in light of the discussion.

GRADE 4

A History of Great Leaders

Common Core

- W.4.1 Write opinion pieces on topics or text, supporting a point of view with reasons and information.
- W.4.7 Conduct short research projects that build knowledge through investigation of different aspects of a topic.
- SL.4.4 Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly, at an understandable pace.

GRADE 5

Surviving in Slim Times

Common Core

- RI.5.3 Explain relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text, based on specific information in the text.
- W.5.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.
- W.5.2c Link ideas within and across categories of information, using words, phrases, and clauses.

GRADE 3

Healthy Homes

Common Core

- RI.3.3 Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.
- W.3.3 Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.

GRADE 4

Shining Animal Stars

Common Core

- RI.4.3 Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.
- W.4.1 Write opinion pieces on topics or texts, supporting a point of view with reasons and information.
- W.4.9 Draw evidence from literary or informational text to support analysis, reflection, and research.

GRADE 6

You Belong at the Zoo!

Common Core

- RI.6.8 Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not.
- W.6.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
- W.6.8 Gather relevant information from multiple print and digital sources; assess the credibility of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and providing basic bibliographic information for sources.



Ken Allen | Orangutan

Rambunctious orangutan that earned the nickname
"Hairy Houdini," 1970s to 2000s

