What's Inside

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To have fun exploring the San Diego Zoo Global Kids’ website visit kids.sandiegozoo.org
Dear Teacher:
We’re looking forward to your visit to the San Diego Zoo. Please help us by completing this short checklist ahead of time.

More than 250,000 students visit us each year! We’ve addressed some of the most common issues you may encounter that could spoil your visit. Read on to ensure a successful field trip.

☐ Complete the classroom activities.
  - These activities align with various grade-specific Performance Expectations outlined in the Next Generation Science Standards. They form the educational basis for your visit.
  - Remember that prior knowledge gained from the pre-visit, in-classroom activities will facilitate advanced student learning while participating in activities at the Zoo.

☐ Arrange for an adequate number of chaperones as determined upon reservation.
  - Additional adults (adults exceeding the ratio noted on your confirmation) will be required to pay a chaperone admission fee.

☐ Have a communication plan for your chaperones.
  - Ask your chaperones to exchange cell phone numbers with you and other chaperones for easy and timely communication. If chaperones do not have a cell, there is a courtesy phone in the Guest Services office that can be used to call you.
  - Confirm that all chaperones know the day’s schedule, meeting times, and locations.

☐ Use the map to plan your visit. Pick up a Zoo map for each chaperone upon arrival.

☐ Make copies of the Chaperone Checklist, Field Trip Activities sheet, and any other forms you create that communicate meeting times and locations.
  - EACH chaperone must have a copy of EACH item.
  - Discuss the activities with the chaperones before the day of your field trip.
  - Make sure you provide chaperones with copies of the activity sheets for each student in grades 6-12 along with pencils.
  - Review behavior expectations with students.

☐ You are welcome to bring your lunches.
  - Poppy’s Patio picnic area in Discovery Outpost has been designated as an eating area for school and day care groups.
  - Store your lunches in the FREE cabinets at the back of the Poppy’s Patio picnic area.
  - Use the tables in Poppy’s Patio picnic area when you eat your lunch. As a courtesy to others, please do not save picnic tables by leaving your lunches on them. We need to share this area with many other guests.
Dear Chaperone:

Thank you for supervising students on a field trip to the San Diego Zoo. Please follow the directions on this page to ensure a safe and enjoyable visit.

Your most important duty is to keep your students with you at all times.

☐ Before the trip, talk to the teacher about:
  • The educational goals of the trip.
  • The behavioral expectations for the students.
  • The activities you will lead at the Zoo.
  • The communication plan and the meeting times and locations.

☐ Before arriving at the Zoo, review this Chaperone Checklist, the Field Trip Activities sheet(s), and any other handouts from the teacher.

☐ Create a list of the students in your group. Along with their names, add a description of what they are wearing in case someone gets lost. Make sure the students know your name.

☐ Review the following Zoo rules with the students in your group:
  • Stay with your chaperone.
  • Stay on the paths.
  • Walk instead of run.
  • Pick up your trash.
  • Respect the animals by being quiet.
  • Keep your hands, body, and objects away from animal enclosures.
  • If you get lost, ask a Zoo employee to help you get to Guest Services.

☐ SKYFARI RULES FOR STUDENTS
  • DON’T rock the car.
  • DON’T spit.
  • DON’T throw things.

☐ Use the Field Trip Activities to keep students involved.
  • Focus students on the activities as you guide them around the Zoo.
  • Encourage the students to ask questions and then look for their own answers by observing, collecting evidence, making guesses, and expressing opinions.

Groups that do not respect Zoo rules will be escorted from Zoo grounds by our Security staff. Shoplifting or writing graffiti will be prosecuted.
THEME – Observing patterns. What do plants and animals need to survive?

Dear Chaperone: Use these activities to add fun and focus as you guide your student group around the San Diego Zoo or San Diego Zoo Safari Park.

EXPLORE AND FIND

An exhibit with animals in it.
Where is the food and water in this exhibit?
Where can the animals find shelter?

An animal that is eating plants.
What part of the plant is the animal eating?
Which plants do you eat?

An animal that has built a nest with plants.
Is the nest on the ground or above the ground?
Can you think of anything in your home that is made from parts of a plant?
(Examples: cotton fabric, wood furniture)

An animal home other than a nest.
(Hint: burrow, tunnel, den, hive, etc.)
What did the animal use to build its home?
What other types of animal homes have you seen today?

An animal that lives in the trees.
How did the animal get into the tree?
What would you like about living in a tree?

An animal that is in the water.
Do you think this animal always stays in the water?
Can you think of any animals that stay in the water all the time?

An animal you especially like.
Of all the animals you saw today, which is your favorite?
Why do you think it’s special?

Try this! I WONDER challenge
To survive, do you need the same things that a plant needs? Do you need the same things that animals need? As a challenge, name four things that were the same (all living things need water, shelter, food, other plants/animals of the same kind). Name four things that were different (geographic location, types of shelter, kinds of food, body shape/movement, defense, etc.)

Your most important duty is to keep your students with you at all times.
• Ask questions to keep students engaged.
• Respond positively to students’ answers and ideas.
• Encourage students to learn by observing.
THEME – Observing patterns. What do plants and animals need to survive?

OBJECTIVES
• Students will use their observation skills.
• Students will analyze plant and animal survival needs.
• Students will investigate this Performance Expectation from the Next Generation Science Standards: K-LS1-1 Use observations to describe patterns of what plants and animals (including humans) need to survive.

PRE-VISIT ACTIVITIES
1. Tell the students they are going on a weeklong camping trip. Lead the class in creating a packing list for the trip. Which items on the list are essential to survival? Animals don’t “pack” things. What do they do in order to survive?
2. Read Animals in Their Habitats by Debra Castor and Jeffrey B. Fuerst. Discuss what plants and animals need to survive. Make a list of the necessary components of a habitat (food, water, space, and shelter).

POST-VISIT ACTIVITIES
1. Ask each student to name the two animals he or she liked best during his or her visit to the Zoo or Safari Park. How were the two animals the same? How were they different?
2. Ask students to name an animal with a beak, with webbed feet, with sharp teeth, with large eyes, or another interesting body part. How did this body part help the animal survive? Have students draw posters showing animals with different kinds of feet, beaks, ears, eyes, or other body parts. Animals live in places that have the things they need, so ask students to complete their drawings with a surrounding environment.
3. Students learned that animals live in different habitats. In their habitats, the animals find the food, water, and shelter they need to live. Ask students what they think might happen if an animal’s habitat is changed or destroyed.
THEME – Growth and Development. How are young plants and animals like their parents?

Dear Chaperone: Use these activities to add fun and focus as you guide your student group around the San Diego Zoo or San Diego Zoo Safari Park.

EXPLORE AND FIND

An adult animal that is very large.
What’s the largest adult animal you have ever seen?

An adult animal that is very small.
What’s the smallest adult animal you have ever seen?

An exhibit where several animals of the same kind (species) live together.
How can you tell that all these animals are the same kind?
If you look closely, you’ll see that the animals are not exactly alike. How can you tell one individual from another?

An exhibit with several different kinds of animals.
How many kinds of animals do you see?
In what ways are the species different from each other?

A young animal that looks like its parents.
In what ways does this animal look like its parents?
How does it look different from its parents?

A young animal that looks different from its parents.
In what ways does this animal look different from its parents?
How do you think the youngster’s looks will change as it grows?

Two plants of the same kind.
How are the plants alike?
How are they different?

Try this! I WONDER challenge
Why do you think the Zoo and Safari Park staff work so hard to take care of the growing plants and animals?

Your most important duty is to keep your students with you at all times.
• Ask questions to keep students engaged.
• Respond positively to students’ answers and ideas.
• Encourage students to learn by observing.
THEME – Growth and Development. How are young plants and animals like their parents?

OBJECTIVES

• Students will use their observation skills.
• Students will investigate this Performance Expectation from the Next Generation Science Standards: 1-LS3-1 Make observations to construct an evidence-based account that young plants and animals are alike, but not exactly alike, their parents.

PRE-VISIT ACTIVITIES

1. Ask for student volunteers to bring in pictures of themselves when they were babies. Hold up the pictures one by one and have the class identify the student in the picture. Discuss ways students have changed since they were younger. Do students now look more like their parents?
2. Collect pictures that show what different animals look like as youngsters and as adults. Use sandiegozookids.org and click on “animals” as a picture resource. Have students match the adults and young. Display the pictures on a bulletin board.
3. Find pictures that show how animals look at different ages. Include pictures of animals that go through metamorphosis, such as frogs and butterflies. Have students arrange the pictures from youngest to oldest.

POST-VISIT ACTIVITIES

1. Read Eric Carle’s book The Very Hungry Caterpillar to students. Have students make their own caterpillar or butterfly art projects. Provide art supplies that include recycled materials such as egg cartons or clean, used foil.
2. Use netting, plants, and caterpillars to transform a glass container into a butterfly nursery. Choose a local species of caterpillar, so students can later release the butterflies into their native habitat.
3. Another option is growing mealworms, available at most pet stores. Use a clean, empty 2-liter soda bottle and fill it with a cup of plain, whole oats (dry) and a few mealworms. For moisture, add a small piece of potato or apple each week. In 10 weeks or less, the worms will pupate and emerge as beetles.
4. Look on the Internet for stories about animals adopting one another, even species different from their own. Share some of those stories with your students. How might those babies grow up to be like its adoptive parent? If a human adopts a baby, how might that baby grow up to be like its parents?
Dear Chaperone: Use these activities to add fun and focus as you guide your student group around the San Diego Zoo or San Diego Zoo Safari Park.

EXPLORE AND FIND

An exhibit with more than one kind of animal.
How many different kinds of animals are in the exhibit?
What are the animals doing?

An exhibit that has both plants and animals.
How are the animals using the plants?
How do you think the plants help the animals?

An aviary with many kinds (species) of birds.
How do the birds share the exhibit space?
How would you describe the birds that stay closer to the ground?
How would you describe the birds that stay in the treetops?

An exhibit that looks like a forest.
What animals and plants live here?

An exhibit that looks like a jungle.
What animals and plants live here?

An exhibit that looks like grassland.
What animals and plants live here?

An exhibit that looks like a snowy, cold place.
What animals and plants live here?

An exhibit that looks like a hot desert.
What animals and plants live here?

Try this! I WONDER challenge
Some animals can live in only one area in the world, while other animals live in many places. Why do you think this happens? What characteristics do some animals have that help them survive with other animals in other places?

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• Ask questions to keep students engaged.
• Respond positively to students’ answers and ideas.
• Encourage students to learn by observing.
THEME – Diversity of Life. What kinds of animals and plants live together?

OBJECTIVES
- Students will use their observation skills.
- Students will compare and contrast the plants and animals they observe.
- Students will investigate this Performance Expectation from the Next Generation Science Standards: 2-LS4-1 Make observations of plants and animals to compare the diversity of life in different habitats.

PRE-VISIT ACTIVITIES
1. Collect pictures of different habitats such as forest, desert, ocean, lake, tundra, jungle, or others (*old calendar photos work well*). Distribute images to student groups and ask them to identify the habitat and discuss what animals might live there. Have student groups present their views to the class. Are there some animals that live in multiple habitats? Are there some that live in one habitat only?
2. Read *I See a Kookaburra! Discovering Animal Habitats Around the World* by Steve Jenkins. Ask students if they can remember more than one animal from each habitat in the story. Can they add more animals to that habitat that are not mentioned in the story?
3. Ask students to find pictures of animals that live together. For example, egrets and Cape buffalo, clownfish and sea anemones, arctic foxes and polar bears. Why do these animals live together? What happens if one goes away?

POST-VISIT ACTIVITIES
1. Review the animals that students saw while on their visit. Make a numbered list of these animals on the board. For each animal, have students name the habitat where it lives and suggest another animal that might live with it, either from the list or on their own.
2. Divide students into groups and assign a different habitat to each group. Tell students to use library resources or the Internet to find images of animals within their habitat. Create a collage of the images. Ask students to analyze each other’s collages. Which habitat has the most animals? Which habitat has the least? Do some habitats support a higher diversity of species?
THEME – Ecosystem Dynamics. Why do some animals survive well in a particular habitat while others do not?

Dear Chaperone: Use these activities to add fun and focus as you guide your student group around the San Diego Zoo or San Diego Zoo Safari Park.

EXPLORE AND FIND

A bird with webbed feet.
Is this bird on the ground? In the water? In a tree?
Look for a bird in a tree. Describe its feet.

A bird with a big beak.
Observe the bird. How does it use its beak?
What other sizes and shapes of beaks do you see?

An animal with big ears.
How do you think big ears could be a helpful adaptation?
Hearing is one of our five senses. Can you think of other senses animals use?

An animal with bright colors and another animal with dull colors.
How might bright colors help an animal survive?
How might dull colors help an animal survive?

An animal with sharp teeth.
What do you think this animal eats? Why?
Run your tongue over your teeth. Do you have any sharp teeth? What do you eat?

An animal with a tail.
How does this animal use its tail?
What are other ways animals use their tails?

A plant with thorns.
How might thorns help a plant survive?
If you were a plant living in a wild habitat, what adaptations would you want to have? Why?

Try this! I WONDER challenge
Name some adaptations that you have that help you survive. Now, take away one of those adaptations. Describe how your life would be different. What could you do to make up for the loss of that adaptation?

Your most important duty is to keep your students with you at all times.
• Ask questions to keep students engaged.
• Respond positively to students’ answers and ideas.
• Encourage students to learn by observing.
THEME – Ecosystem Dynamics. Why do some animals survive well in a particular habitat while others do not?

OBJECTIVES
• Students will use their observation skills.
• Students will give examples of evidence that specific animals and plants live in a particular habitat
• Students will investigate this Performance Expectation from the Next Generation Science Standards: 3-LS4-3 Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.

PRE-VISIT ACTIVITIES
1. Define the term adaptation (a characteristic of a living thing that helps it survive in its environment). Have students list some physical and behavioral adaptations of people.
2. Read Anita Ganeri’s book Creature Features to the students. Ask each student to choose which animal he or she would most like to be and explain why. Have students write and illustrate stories about the animals they choose.
3. Have students design animals of their own using recycled materials. Ask students to describe where their animals live and what physical features help them survive in their habitats. After students present to their group or class, try to group animals together that would live in similar habitats.

POST-VISIT ACTIVITIES
1. Ask the students to brainstorm a list of animal adaptations they saw on their field trip. Have students sort the adaptations into categories such as adaptations for eating, moving, and defense. Do animals that have similar adaptations live in similar habitats?
2. Ask students to think of some adaptations plants have for survival. Sort the adaptations into categories such as reproduction, defense, and water conservation. Do plants that have similar adaptations live in similar habitats? Could a desert plant survive in a jungle?
3. Have each student bring an object from home that represents an animal adaptation. (See the books Creature Features by Anita Ganeri and The Robot Zoo by John Kelly for ideas.) As each student presents the object in class, have the other students guess which adaptation the item represents.
4. Discuss how habitats, like animals, can become endangered. When habitats change, what happens to the animals? Brainstorm ways students can help protect local habitats. Choose an idea from the list and take action!
THEME – Information Processing. What senses do animals use to process information around them and respond?

Dear Chaperone: Use these activities to add fun and focus as you guide your student group around the San Diego Zoo or San Diego Zoo Safari Park.

EXPLORE AND FIND

An exhibit with an animal that has a good sense of sight.
How do you know that it has a good sense of sight?
How does the sense of sight help this animal in its environment?
What other animals have a good sense of sight?

An exhibit with an animal that has a good sense of hearing.
How do you know that it has a good sense of hearing?
How does the sense of hearing help this animal in its environment?
What other animals have a good sense of hearing?

An exhibit with an animal that has a good sense of taste.
How do you know that it has a good sense of taste?
How does the sense of taste help this animal in its environment?
What other animals have a good sense of taste?

An exhibit with an animal that has a good sense of smell.
How do you know that it has a good sense of smell?
How does the sense of smell help this animal in its environment?
What other animals have a good sense of smell?

An exhibit with an animal that has a good sense of touch.
How do you know that it has a good sense of touch?
How does the sense of touch help this animal in its environment?
What other animals have a good sense of touch?

Try this! I WONDER challenge
Review the different senses that you have that help you survive. Take away one of those senses. Describe how your life would be different. What could you do to make up for the loss of that sense?

Your most important duty is to keep your students with you at all times.
• Ask questions to keep students engaged.
• Respond positively to students’ answers and ideas.
• Encourage students to learn by observing.
THEME – Information Processing. What senses do animals use to process information around them and respond?

OBJECTIVES

- Students will use their observation skills.
- Students will make connections between how an animal senses its environment and how it responds.
- Students will investigate this Performance Expectation from the Next Generation Science Standards: 4-LS1-2 Use a model to describe that animals receive different types of information through their senses, process the information in their brain, and respond to the information in different ways.

PRE-VISIT ACTIVITIES

1. Have students explore their own five senses by experiencing five stations. Station 1: a hot, wet towel (touch); Station 2: sugar on a plate (taste); Station 3: any noisemaker, like a rattle (hearing); Station 4: open bottle of perfume (smell); Station 5: a paper photo of a dog (sight). Ask students to rotate through the stations and use their five senses to explore the items. If you only had one sense to identify the item, which one would you use? Why?

2. Have the class read Animal Senses: How Animals See, Hear, Taste, Smell, and Feel, by Pamela Hickman.

3. Ask students what happens when we lose one of our senses. Have students close their eyes, and try to “explore” the classroom from their chairs. What other senses could they use?

POST-VISIT ACTIVITIES

1. Write the five senses on the board. Have students come to the board to write the name of an animal they saw at the Zoo or Park and the animal part that functions as that sense organ. Analyze the list. Are all ears the same? Do all animals need to hear the same thing? Are all eyes the same? All noses?

2. Ask students to use library resources or the Internet to find animals with super senses, such as bats with exceptional hearing, cats with exceptional night vision, or sharks with exceptional smell. Why do these animals need these highly developed senses?

3. Have students create a unique 3-D animal with super senses. Use clay, art supplies, or recycled materials. Tell students to create an animal identification card that explains the super sense and how the animal uses it.
THEME – Interdependent Relationships in Ecosystems. How does matter move among plants, animals, and decomposers within a food web?

EXPLORE AND FIND

A small carnivore (meat eater) and a large carnivore.  
What hunting strategies do you think these two carnivores use?  
How could large size be an advantage? How could small size be helpful?

A small animal that is prey (eaten by other animals) and a large animal that is prey.  
What adaptations do these animals have that might help them avoid predators?  
If you were a predator, how would you capture the small animal? What new challenges would you have trying to catch the large animal?

An herbivore (plant eater) eating plants.  
Is this herbivore grazing (eating grasses) or browsing (eating shrubs and bushes)?  
What part of the plant is it eating?

An omnivore (meat and plant eater).  
What adaptations does this omnivore have for feeding?  
How does being an omnivore help an animal survive?

Look for some large trees.  
How do plants get their energy to grow?  
Can you name some animals that eat plants?

A flowerbed or landscaped area with flowers.  
Do you see any animals, including insects, feeding on the flowers?  
How do animals help plants? (Animals spread pollen and seeds.)

Try this! I WONDER challenge

If you were a wild animal, would you rather be a carnivore, herbivore, or omnivore? Why?  
How would the world be different without land carnivores? How would the world be different without terrestrial plants?

Your most important duty is to keep your students with you at all times.  
• Ask questions to keep students engaged.  
• Respond positively to students’ answers and ideas.  
• Encourage students to learn by observing.
THEME – Interdependent Relationships in Ecosystems. How does matter move among plants, animals, and decomposers within a food web?

OBJECTIVES
- Students will use their observation skills.
- Students will evaluate and connect relationships between plants, animals, and the environment.
- Students will investigate this Performance Expectation from the Next Generation Science Standards: 5-LS2-1 Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment.

PRE-VISIT ACTIVITIES
1. Have the class read Gary Larson’s book, *There’s a Hair in my Dirt! A Worm’s Story*. Review the terms primary producer, primary consumer, and secondary consumer. Also define herbivore, carnivore, omnivore, and decomposer. Ask students about what they eat, and which term defines them.
2. Introduce or review the concept of food webs. Use images of animals from magazines, calendars, playing cards, or printed from the Internet to construct a food web. Then ask students to begin at one point in the web and explain how matter might move through the system.

POST-VISIT ACTIVITIES
1. Review the animals your students observed while at the Zoo or Safari Park. Can you construct a food web from the animals you observed? If not, which part(s) are missing? In a managed care setting, grouping more than one type of animal together in the same space requires careful planning. Why is this?
2. Learn about composting and vermiculture. How does this fit into a food web? (recycling of nutrients). If your school doesn’t have a garden and composting bin, set up a mini system of worm bins in your classroom. Red worms *Eisenia fetida* and *Lumbricus rubellus* are commonly used. For best results, feed your worms only raw fruit and vegetable scraps.
3. Have students practice recording data by creating their own field journals. Explore an outdoor area near the school. Have students use journals to record observations about the plants and animals they see. Encourage students to use maps, diagrams, and drawings in their journals. Can they identify plant and animal relationships within their ecosystem and construct the food web?
San Diego Zoo Global is committed to saving species worldwide by uniting our expertise in animal care and conservation science with our dedication to inspiring passion for nature.

Your challenge
Complete this page by using your observational skills (look at uniforms and equipment, watch activities, etc.) without talking to Zoo or Safari Park employees.

Directions
1. Observe the variety of jobs at the San Diego Zoo or Safari Park. Put a check by the jobs you see people carrying out during your visit. Circle the jobs in which people work directly with animals.

   - Admissions clerk
   - Parking lot attendant
   - Animal trainer
   - Merchandising sales clerk
   - Custodian
   - Researcher
   - Bus/Railway driver
   - Security officer
   - Food service staff
   - Tour guide
   - Gardener
   - Visitor assistance officer
   - Keeper
   - Veterinarian
   - Other: __________________________

2. Observe three employees who are doing different jobs. For each job, describe the duties you see being performed and list any tools being used. What other duties do you think each job might have? How does each of these jobs support the conservation efforts of San Diego Zoo Global?

<table>
<thead>
<tr>
<th>Job</th>
<th>Duties</th>
<th>Tools</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<td>3</td>
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</table>
OBJECTIVES

- Students will use their observation skills.
- Students will investigate various career paths within a zoological organization.

PRE-VISIT ACTIVITIES

1. Have students brainstorm a list of jobs that interest them. Ask students to guess which of the jobs might be available at the San Diego Zoo or Safari Park. Compare the students’ list to the job titles provided below.
2. Have students brainstorm a list of conservation-related jobs, thinking beyond the obvious conservation careers. How could their diverse job interests (e.g., photography, art, sports) be used to help conservation?
3. Have students compare their descriptions to actual job descriptions listed in the following resources: www.sandiegozoo.org, www.aza.org, and Careers Working With Animals by Guy R. Hodge. Ask each student to write a job description for a conservation-related position, listing job responsibilities as well as required skills, education, and experience.
4. Give one copy of the Field Trip Activities sheet to each student to complete during the field trip.

POST-VISIT ACTIVITIES

1. Ask students to share the observations from their Field Trip Activities sheets. Which jobs did they observe most frequently? Which jobs probably have large numbers of employees? Which jobs probably have fewer employees? Why?
2. San Diego Zoo Global has a mission: We are committed to saving species worldwide by uniting our expertise in animal care and conservation science with our dedication to inspiring passion for nature. Under Background Information (below) is a list of positions at the Zoo. How does each person support the mission?
3. Have students create a slogan and design a poster or ad campaign promoting conservation. An example of a slogan might be, “Conservation: A Job for Everyone.”
4. Have students brainstorm a list of some conservation projects that could be done at school, then make a plan and take action!

BACKGROUND INFORMATION

Here are some of the different job positions at the San Diego Zoo and San Diego Zoo Safari Park:

<table>
<thead>
<tr>
<th>Animal trainer</th>
<th>Fundraiser</th>
<th>Mechanic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animal keeper</td>
<td>Tour guide or Safari guide</td>
<td>Computer operator</td>
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<tr>
<td>Security officer</td>
<td>Public Relations coordinator</td>
<td>Librarian</td>
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<td>Architect</td>
<td>Admissions attendant</td>
<td>Sales clerk</td>
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<td>Merchandising buyer</td>
<td>Photographer</td>
<td>Graphic illustrator</td>
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<tr>
<td>Researcher</td>
<td>Gardener</td>
<td>Bus/Railway driver</td>
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<td>Construction worker</td>
<td>Curator</td>
<td>Sign maker</td>
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<td>Special events coordinator</td>
<td>Accountant</td>
<td>Office manager</td>
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<tr>
<td>Veterinarian</td>
<td>Administrative assistant</td>
<td>Advertising manager</td>
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<tr>
<td>Chef</td>
<td>Medical technician</td>
<td>Janitor</td>
</tr>
<tr>
<td>Human Resources representative</td>
<td>Nutritionist</td>
<td>Telephone operator</td>
</tr>
</tbody>
</table>
Directions
1. Choose two exhibits to analyze: one that you think is well designed and one that you think needs remodeling.
2. Fill out an Exhibit Report Card for each exhibit. Grade each exhibit component using the following scale:
   - A - Excellent
   - B - Good
   - C - Needs improvement
3. Draw a map of each exhibit showing the location of feeders, trees, rocks, water features, and other physical elements of the exhibit.

EXHIBIT REPORT CARD

Name of animals in exhibit__________________________________

<table>
<thead>
<tr>
<th>Exhibit Component</th>
<th>Grade</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feeders</td>
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<tr>
<td>Water</td>
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<td></td>
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<tr>
<td>Shade</td>
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<td>Places to hide (privacy)</td>
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<tr>
<td>Places to climb/dig/perch/swim/etc.</td>
<td></td>
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<tr>
<td>Room to exercise</td>
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<tr>
<td>Guest viewing</td>
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<tr>
<td>Guest information</td>
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<tr>
<td>Guest accessibility</td>
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</tbody>
</table>

Exhibit Rating:  □ Well designed  □ Needs remodeling

MAP OF THE EXHIBIT

Draw a map of the exhibit.
THEME - Exhibit Design

OBJECTIVES
• Students will use their observation skills.
• Students will analyze existing exhibit design and apply concepts to a new, unique design.

PRE-VISIT ACTIVITIES
1. Review what animals need to survive—food, water, and shelter. How might the needs of animals change when they live in a zoo?
2. Have the class brainstorm a list of factors a zoo would need to consider when designing an exhibit. (Refer to the background information below to help guide students.)
3. Divide the class into chaperone groups and have students pair up within each group. Give each pair two copies of the Field Trip Activity sheet. Student pairs need to work together to analyze two exhibits while at the Zoo or Safari Park.

POST-VISIT ACTIVITIES
1. Explain that each group will redesign the exhibit they rated as “Needs remodeling.” Have students create their designs based on the needs of the species in the exhibit, considering the type of habitat, what the animal eats, how it behaves. Is it solitary or social? Nocturnal or diurnal? Have students use the Internet to learn how their animal lives in the wild and any other information that might help them design an exhibit.
2. Have each group design an enclosure for their species, developing a scale drawing and a narrative description of the enclosure. Include interpretive graphics: animal information that visitors will read to learn about the animal. Have student groups present their plans to the class.
3. Either have the groups build scale models of their enclosures, or have the class construct a model of an entire zoo. To build an entire zoo, assign groups of students to build different portions of the zoo, then combine the scale models to create one large zoo.

BACKGROUND INFORMATION
Consider these factors when designing enclosures:
• Location(s) of drinking water and feeding area
• Pool or other water source for bathing, playing, or cooling off
• Space and structures that enable animals to climb, run, dig, swim, fly, or exercise
• Areas where animals can perch, rest, nest, or have privacy from Zoo or Park visitors
• Adequate light for diurnal animals and darkness for nocturnal animals
• Method for heating or cooling the enclosure
• Barriers between the animals and visitors that are safe for both
• Safe and efficient ways for keepers to clean the exhibit
• A positive experience for visitors in which they can get a good view of the animals and read information about them