

### San Diego Zoo Project Kit

Congratulations! You're going to the San Diego Zoo! Use these project ideas to enrich your educational experience in the park. Read through them before you go to make sure you understand the terms and concepts, and to help you determine if you want to expand upon any of them. You'll find fun facts and printable worksheets at the end of this packet.

a- elementary level activity b- middle school level activity c- high school level activity

#### Language Arts

Animals have language, too! Take some time to observe animals interacting with each other. How are they communicating to each other? How are they reacting to one another? Do you see positive or negative emotions in their communications? What are they trying to achieve? Is the way they are communicating effective? What can we learn from them?

- a. Draw a picture about what you see. Talk or write about it.
- b. Write a few short paragraphs about what you see. Talk about it.
- c. Write a short essay about what you see. Discuss ways in which we, as humans, can use some of our communication skills to better exist in harmony with one another. What kinds of communications should we avoid, and which should we employ more frequently?

Materials required: Notebook, pen/pencil

Submission: A copy of your writings/drawing, and any pictures/videos

#### **Applied Math**

Animals eat a lot! How much animal food does the San Diego Zoo have to purchase and prepare? How many animals live at the park? Use technology or ask a docent/keeper/employee to get estimates, and use those estimates to calculate how much money the zoo spends to feed its animals.

- a. Choose one animal to research how much it eats in a day. Calculate how much food it would need in a year. Draw or write about your findings.
- b. Choose one animal to research how much it eats. Calculate how much food it would need in a year, and estimate how much that food will cost. Then, multiply that figure by the number of that type of animal the park takes care of. Record your calculations.
- c. Calculate estimates of food needs for each animal, each type of animal, and all of the animals at the park. Do this per day and per year. Estimate how much that would cost. Record your calculations.

Materials required: Notebook, pen/pencil, calculator or smartphone (optional) Submission: Your calculations, estimations, and conclusions, and any pictures/videos

#### Science

Animals are awesome! Zoologists study animals. Every animal has a unique life history. A "life history" is the story of an animal's life from birth (or fertilization) to adulthood (and death). How many different ways can an animal begin it's life? Are some animals more independent as babies than others? Why do you think this is? What about their lives affect how vulnerable they are when they are born? What kinds of animals raise their babies, and what kinds don't? How does this affect how many babies survive to adulthood?

- a. Choose an animal to think about these questions for. Draw or write about your ideas.
- b. Discuss and diagram the unique life history of one of the animals you see. Write a paragraph about your findings.
- c. Discuss the life history of one of the animals at the park. Write a short essay on your findings. Then, explore zoology. What kinds of things does the zoo need to keep in mind about each animal's' life history when it is designing its living space and their plan for taking care of it? Does the zoo have breeding programs for any of the animals? What are they working on currently? Ask a zookeeper.

Materials required: Notebook, pen/pencil

Submission: A copy of your drawings, diagrams, maps, or designs, and any pictures/videos

#### **Social Studies**

There can be a lot of people at the zoo! How does a zoo handle the crowds? What affect does the layout of the park have on the movement of people? How does the design help both the animals and the people have an enjoyable time? Can you see these same principles in use in the planning of large cities or other social environments?

- a. Notice how many people are in the park. Discuss some of the things the zoo does to control crowding and help make each guest's experience pleasurable. Write down the techniques you see and how often you see them being used.
- b. Analyze the layout of the park and if/why certain features were designed with the purpose of managing crowds. Use the map, and write down what you find.
- c. Discuss crowd control and analyze the layout of the park. Discuss the things you've seen in light of larger social environments you've been in. How universal are these techniques? What are your ideas for improving guest experience at the zoo?

Materials required: Notebook, pen/pencil, park map Submission: A copy of your writings/drawings, and any pictures/videos

# FUN FACTS

- The San Diego Zoo's collection was created from a scattering of specimens that remained in Balboa Park at the close of the 1915-1916 Panama-California International Exposition.
- The San Diego Zoo is home to over 3,700 animals of more than 650 species and subspecies.
- The San Diego Zoo was a pioneer in the concept of open-air, cageless exhibits that recreate natural animal habitats.
- It is one of the few zoos in the world that houses and successfully breeds the giant panda.
- An orangutan named Ken Allen was reported in several newspapers in the summer of 1985 for repeatedly escaping from the supposedly escape-proof orangutan enclosure. He was nicknamed "the hairy Houdini".
- The world's only albino koala in a zoological facility was born September 1, 1997, at the San Diego Zoo and was named Onya-Birri, which means "ghost boy" in an Australian Aboriginal language. The San Diego Zoo has the largest number of koalas outside of Australia.
- The Owens Rain Forest Aviary contains about 200 tropical birds representing 45 species. Lories, kingfishers, Bali mynahs, jacanas, woodpeckers, and argus pheasants can all be seen here.
- The San Diego Zoo Institute for Conservation Research is the largest zoo-based multidisciplinary research effort in the world. Based at the Arnold and Mabel Beckman Center for Conservation Research adjacent to the San Diego Zoo Safari Park, more than 200 dedicated scientists carry out research vital to the conservation of animals, plants, and habitats, locally and internationally.

## San Diego Zoo

	a picture						
	•	favorite you love		somethin	g it did v	vhile you	were
	•			somethin	g it did v	vhile you	were
	•			somethin	g it did v	vhile you	were
	•			somethin	g it did v	vhile you	were
	•			somethin	g it did v	vhile you	were
there,	and why		è i†.				
there,	and why	you love	è i†.				
there,	and why	you love	è i†.				

4. [	Draw or describe a bird that you saw at the zoo.
L	
5 D	Describe or draw a reptile you saw at the zoo.
Γ	year services the principal services the zee.
6. V	What are the differences between mammals and birds?
-	
-	
_	

# BONUS: San Diego Zoo Scavenger Hunt! lacksquare Something with wings \_\_\_\_\_\_ ☐ Something that hibernates \_\_\_\_\_ ☐ Something that is bipedal \_\_\_\_\_ lacksquare Something that is blue \_\_\_\_\_ ☐ Something with fangs \_\_\_\_\_ ☐ Something that eats mice \_\_\_\_\_ lacksquare Something that eats vegetables \_\_\_\_\_ lacksquare Something that has talons \_\_\_\_\_\_ ☐ Something that is diurnal \_\_\_\_\_ ☐ Something that lives in the water \_\_\_\_\_ ☐ Something that likes to hide \_\_\_\_\_