Fresno Chaffee Zoo Project Kit

Congratulations! You're going to the Fresno Chaffee 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

The art of language is the art of communication. All around the zoo are signs which communicate different things. How many different kinds of signs are there (informational, directive, etc)? How does the format of the signs differ? Do different types of signs use different types of text, fonts, images, and sizes, to communicate effectively?

a. Identify two different types of signs and what they are trying to communicate. Draw your own sign.
b. List all the types of signs you can find and what they communicate. Write a short paragraph for each one describing its purpose and design.
c. Take note of the different types of signs and what they communicate. Why are signs important? Write a short essay about the importance of signs and their specific designs in communication, including examples of other places we typically find signs and what they are used for.

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

Teaching or learning notes:

Applied Math

Animals need space to live. Zoos do they best they can to create enclosures for the animals that are safe and provide enough space for the animals to be happy. Zoo designers need to use math to create these spaces.

a. Take a closer look at one species' enclosure. How much space does it have? How many animals are in that space? Why do they have that much space? Draw a picture and/or write about what you found.
b. Compare two different species' and their enclosures. How many animals are in each? How big is each enclosure? Estimate actual area for each. How much space does each animal have in each enclosure? Record your calculations and write a short paragraph hypothesizing why the differences are the way they are.
c. Design your own enclosure for an animal of your choosing. Research the animal, its life history and behavioral patterns, so you can determine the amount of space you will need for the number of animals you have chosen to design the enclosure for. Include a drawing of your enclosure and an explanation of why it is designed the way it is, including one example of the math used to create it.

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

Teaching or learning notes:

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

Teaching or learning notes:

Social Studies

We can learn a lot about the way people interact by watching animals interact. How do they talk to each other? How do they get along living in an enclosed space together? Are they naturally social or reclusive, and how do they handle those differences in personality?

a. Spend some time watching some of the animals interact, or watching a solitary animal. Discuss why they are behaving the way they are, alone or with others. Draw a picture or write a short paragraph about your findings.
b. Spend some time watching some of the animals interact, or watching a solitary animal. Write a short report on what you see and how those interactions are similar to and different than human interactions.
c. Spend some time watching some of the animals interact, or watching a solitary animal. Drawing comparisons to humans, discuss the importance of social structure and a respect for individuality. Write a short essay about social ethics and etiquette incorporating principles you observed with the animals.

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

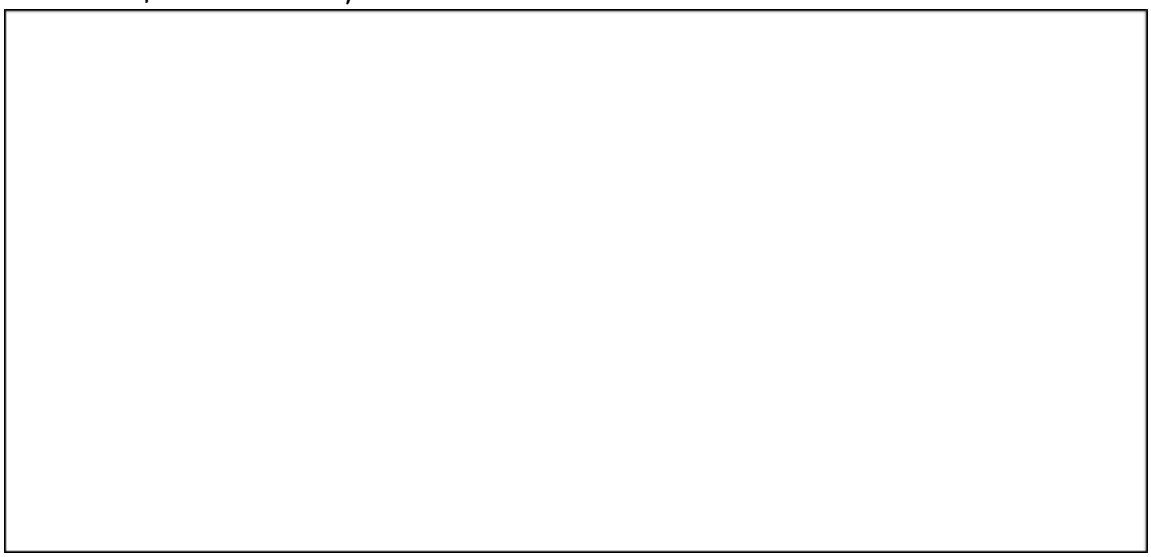
Teaching or learning notes:

Fun Facts

- The Zoo is home to more than 190 different species of animals.
- The Zoo first opened in 1908. The first animals were largely unwanted pets which had been donated by Sezer Tamcakir. The earliest zoo record describes a collection consisting of two bears and around fifty birds of various species. An amphitheater was built. Bears, local cats, hoof stock, and birds were added to the Zoo and housed in log cabin type exhibits.
- The horn of a rhinoceros is made from compacted hair rather than bone or another substance.
- Even when a snake has its eyes closed, it can still see through its eyelids!
- Elephants can swim – they use their trunk to breathe like a snorkel in deep water.
- In the wild, lions rest for around 20 hours a day.
- Giraffes are ruminants. This means that they have more than one stomach. In fact, giraffes have four stomachs, the extra stomachs assisting with digesting food.
- Instead of drinking water, frogs soak it into their body through their skin.
- Tigers can reach a length of up to 11 feet and weigh as much as 660 pounds!
- If you lift a kangaroo's tail off the ground it can't hop – they use their tails for balance.
- The sentence "The quick brown fox jumps over a lazy dog." uses every letter of the alphabet.
- A single elephant tooth can weigh as much as 9 pounds!

Fresno Chaffee Zoo

1. Draw a picture of your favorite animal at the zoo.



2. Describe your favorite animal, something it did while you were there, and why you love it.

3. What is one thing you learned about mammals at the zoo?

4. Draw or describe a bird that you saw at the zoo.

5. Describe or draw a reptile you saw at the zoo.

6. What are the differences between reptiles and amphibians?

BONUS:

Zoo Scavenger Hunt!

- ❑ Something with wings _____
- ❑ Something that hibernates _____
- ❑ Something that is bipedal _____
- ❑ Something that is blue _____
- ❑ Something with flowers _____
- ❑ Something that eats mice _____
- ❑ Something that eats fruit _____
- ❑ Something with leaves _____
- ❑ Something that is diurnal _____
- ❑ Something that lives in the water _____
- ❑ Something that likes to hide _____