



OBJECTIVE

Students will create a zoo or aquarium exhibit for their chosen animal.

METHOD

Students use various building materials to create suitable exhibits for their chosen animals. They will incorporate current standards of the Association of Zoos and Aquariums (AZA) into their design, such as animal enrichment, appropriate shelter and interpretation. Upon completion of their exhibit, students will tour the rest of the class through their creation!

GRADE LEVEL

2nd - 5th

MATERIALS

Various art supplies, including construction paper, papier-mâché, cardboard boxes, etc.

NATIONAL SCIENCE EDUCATION STANDARDS (NSES) "Science Content" Links

- Science as Inquiry
- Life Science
- Science and Technology
- Science in Personal and Social Perspectives

OH, GIVE ME A HOME!



Feeding and Cleaning are Just the Beginning!

So you think it is hard to take care of a dog or cat, huh? Always having to take them out for a walk, clean their litter box, feed them, play with them, take them to the vet – it never ends! Imagine what it takes to care for hundreds of animals each day from koalas like Nigel to giant giraffes like Bridget. Zoos and aquariums that take care of their animals really well earn a special seal of approval from AZA called "accreditation". In order to earn accreditation, zoo and aquarium designers need to ensure that the exhibits they create provide many of the things found in the animal's natural habitat. These are just some of the criteria that need to be considered.



The Bird House

Riverbanks Zoo & garden



Japanese Spider Crab

Todd Stailey, Tennessee Aquarium



Enrichment is any item, smell, sound, etc. that engages an animal. For example, a box with food hidden inside can be added to a lion's habitat causing him/her to work harder to get to the treat inside. Think about the games you and your friends play for enrichment.



Space - Some animals need a lot of room to swim, fly, or climb, while others feel more at home in a tighter, more secure space. A good architect does a lot of research on the natural habitat of the animal and tries to give them the appropriate space to "do their thing". Many animals are endangered in the wild due to lack of space.



Shelter and Hiding Spaces - Many animals welcome a place to go during the heat of summer or cold of the winter. It is very important to add adequate shelter in an exhibit!



Safety – Safety is important not only for the animals but the animal care staff and visitors as well! Care staff needs a safe way to give the animals medical care and clean their exhibits. This is especially important for potentially dangerous animals like tigers, bears or venomous snakes. Designers always include temporary areas for animals to go while animal care staff performs their caretaking duties.



Education – It is fun to learn more about the animals seen in AZA zoos and aquariums. To make it easy for guests to learn about the animals they see, designers add signs, videos or other interactive elements to the animal exhibits. By learning more about animals in zoos, guests can preserve the animals' natural habitats in the wild.



The Sky's the Limit! – There are many other elements to consider besides the ones listed above. Designers work closely with zoo and aquarium staff to make sure that any new and creative ideas are safe, exciting, and enriching for guests, staff and animals alike!

If the New York Zoo was a real zoo, maybe they could try for AZA accreditation. They would have to solve their after-hours escape problems first though!



NOW IT'S YOUR TURN

Time to Design!

1. Divide students up into small working groups of 3-4 each. Have each group decide which animal they would like to exhibit.
2. Once the group decides on an animal, have them do some research on the species. What is its habitat like in the wild? Are there any special requirements that the animal might need, like a heat source or climbing structure? Have the group record any important facts that would help in the design of their exhibit. This is also a good time to think about what educational interpretive message they would like to deliver to the guests that will view this exhibit.
3. Now it's time to begin construction of the exhibit. Using the art supplies, allow students ample time to build their exhibit. Suggest that each member of the team assume a different role in the building process. One might build the structure while another works on the educational interpretives, etc. Remind them about adding enrichment, shelter, etc.
4. Once all construction is complete, assemble all of the exhibits into one big zoo or aquarium.
5. Have each group lead a tour of their exhibit, explaining all of the items that have been incorporated.
6. Have the rest of the students decide if each exhibit would receive AZA accreditation based on the elements included in its design. Remember that the zoos and aquariums that earn AZA accreditation are those that create exhibits that meet the needs of the animals, staff and guests.

GO THE EXTRA MILE

After the projects are completed, you and your students may wish to visit your local AZA zoo or aquarium (find yours at www.aza.org) and see how they've designed their exhibits. Consider setting up a time to chat with a zoo/aquarium staff person about the exhibits at their facility. Ask them what works well or what could be improved with the displays. See if they have any exhibit plans in the works that they might want to share. Chances are they have old (or new!) blueprints lying around that will show the layout and design of an exhibit.

Other Resources

- Polar Bears in Phoenix? Project WILD K-12 Curriculum and Activity Guide 2005 The Council for Environmental Education pp 125-127. See www.projectwild.org
- Designing a Habitat. Project WILD Aquatic K-12 Curriculum and Activity Guide. 2005 The Council for Environmental Education pp 19-20. See www.projectwild.org
- Designing a Zoo Tiger Exhibit. Save the Tiger Fund. www.savethetigerfund.org/AllAboutTigers/Adventures/handbook/c1a1.htm

