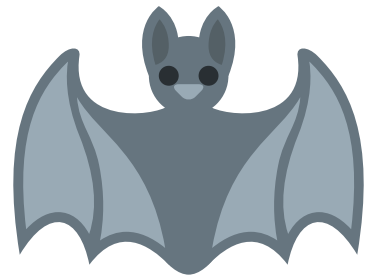
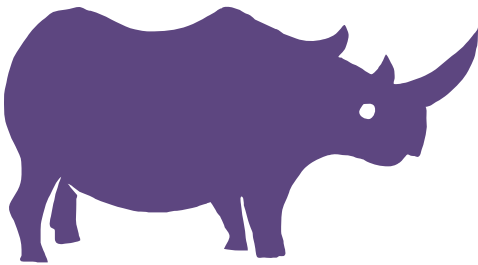




SCIENCE CAREER
ADVENTURES

Zack the Zoologist: Habitats at the Zoo

Meet Zack!



Hi, I'm Zack, a zoologist! A zoologist is a scientist who knows all about animals! Zoologists can work on all kinds of projects! They can study why spider monkeys live in groups, investigate why a disease is spreading between different types of bats, or create a plan to save endangered rhinos.

What I am Working On

Right now, I work at the New Orleans zoo! We are creating new exhibits that people can visit. An exhibit at a zoo is the place where an animal eats, sleeps, and plays. The exhibit has all the things an animal would have in its natural habitat, like food, water, and shelter. The exhibits are located in places at the zoo where people can watch the animals. Here is part of our giraffe exhibit.



Right now, I am creating a large African animal exhibit! The first thing I need to do is learn about the African animals that are coming to live in the zoo and what their home in Africa is like.



Learning About Habitats

The zoo spaces where the animals will live must be like the habitats they are used to in Africa. A habitat is the space an animal lives in. Habitats provide everything an animal needs to survive, like food to eat or places to sleep.

For example, the habitat of an African lion is an open grassland. There, it catches its prey and sleeps on the ground.



The habitat of a hippopotamus is in muddy, slow-moving rivers. They feed on underwater plants and keep cool by staying under water much of the time.



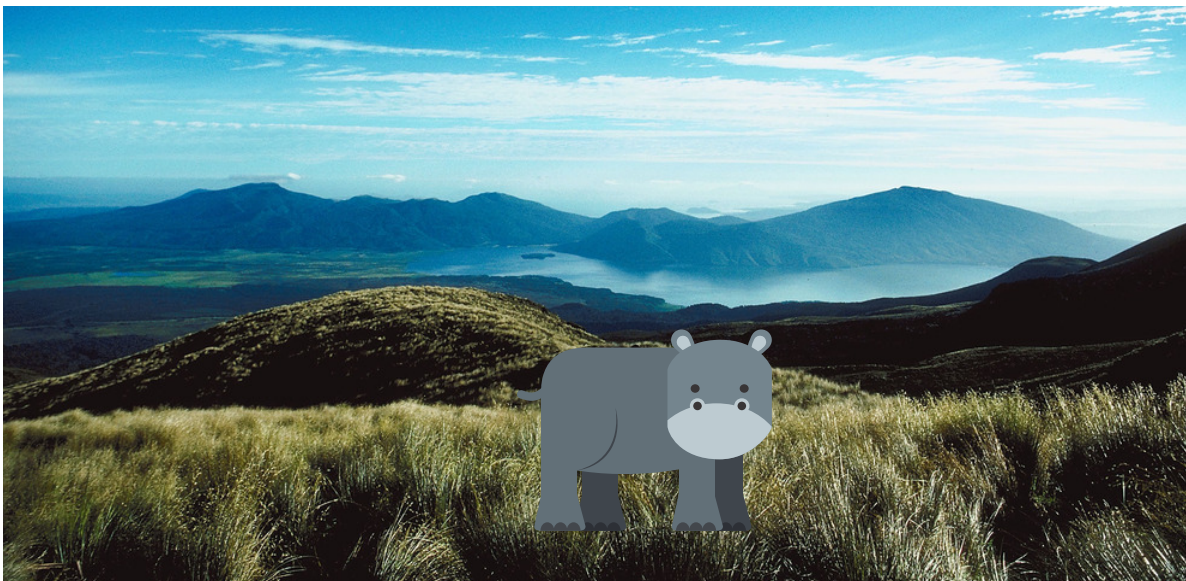
Learning About Habitats

Animals can only survive in habitats that have what they need to live. Lions cannot survive in rivers because they catch their prey by running on land. They also cannot swim well!



Can you imagine a bunch of lions trying to sleep in a river? They might drown!

Hippopotamuses cannot live on the grassland because their skin needs to stay moist. Without water, their skin would dry out and they would get sick. Animal at the zoo can only be healthy in a habitat that is similar to the one they are from in the wild.



Differences Between Habitats

For the Africa exhibit, I am designing habitats for three kinds of animals that are arriving to the zoo soon!

The animals are:

A pack of wild dogs. They are similar to wolves, and they live and hunt in packs.



A pair of okapi. They are very unusual animals that look like a cross between a giraffe and a zebra!



A group of African penguins. They are small water birds that have black and white feathers.



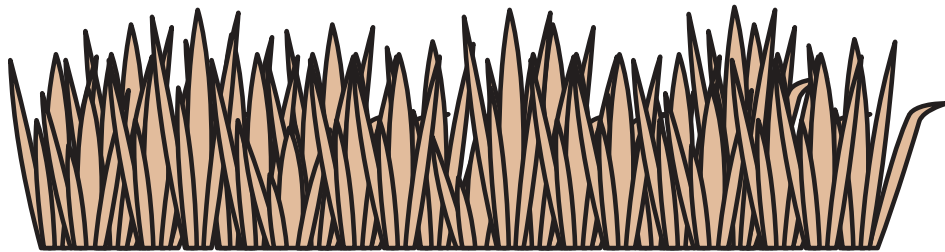
Before I can make the exhibits, I need to learn what each animal needs in its habitat to survive well. To get this information, I emailed a zoologist friend who lives in Africa and works closely with these animals. She sent me a list of the things I will need for the habitat of each type of animal.

Wild Dog Habitat Needs



Here is the list of habitat needs for the wild dogs:

- A dry, grassy area with a few trees for shade.
- A large area to run around in.
- A den for the dogs to sleep in.
- A small source of water to drink. They do not swim, so a large amount of water is not needed.



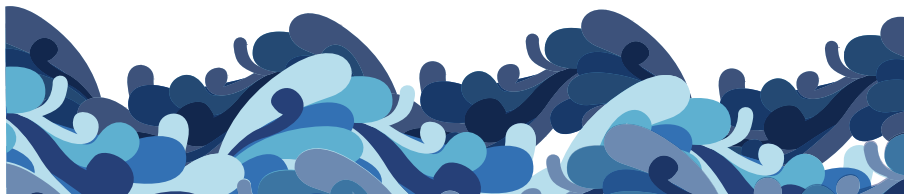
I asked my friend if the den was really important. She told me the wild dogs could survive without it, but might not survive as well. I also asked her how high the dogs could jump. Not for their survival, but to be sure they could not escape the exhibit.

African Penguin Habitat Needs



Here is the list of habitat needs for the penguins:

- A large, deep area of water for swimming in.
- A sandy beach area with rocky ledges for sleeping and drying out their feathers.
- A supply of fish to eat.



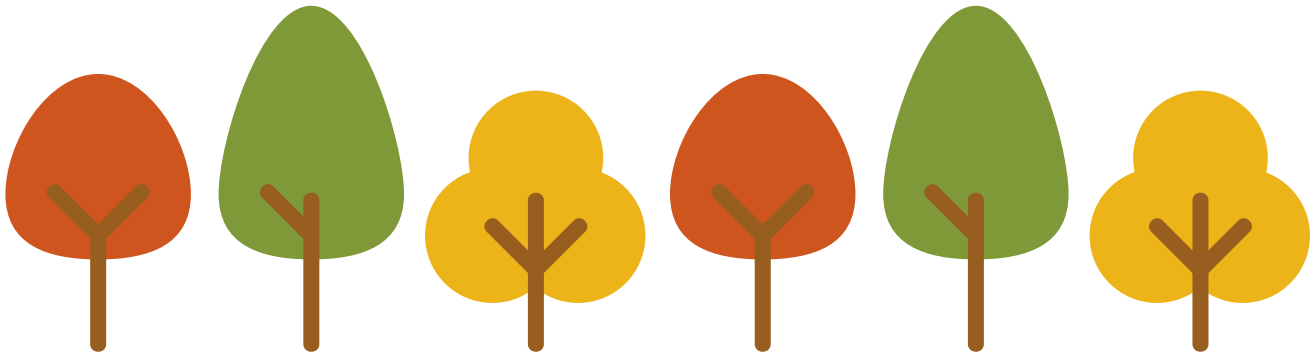
I asked my friend if the penguins could survive with a large, shallow area of water. She said they might survive without deep water, but they might not be as healthy. She told me African penguins dive up to 30 meters under water. That is the length of 5 giraffes! The deep diving keeps their muscles and bodies strong.

Okapi Habitat Needs



Here is a list of the habitat needs for the okapi:

- Lots of trees, bushes and plants.
- Not a lot of open, sunny areas.
- A quieter area.



I asked my friend if the okapi could survive with some noise because it is hard to keep the zoo quiet! She said they would be able to survive well with some noise, as long as they had places to hide in the trees and plants when they felt nervous. She told me okapi are shy and do not like a lot of attention.

Making a Plan

Now that I have learned what each animal will need to be healthy at the zoo, I need a plan for making the exhibits.

Here are the steps of my plan:

1. Create diagrams of each exhibit:

I will use a computer to create diagrams of what I'd like each exhibit to look like, how big it will be, and what will be inside of it.



2. Build the exhibits:

Once my plans are ready, I will gather together a team of people to start building the habitat exhibits!



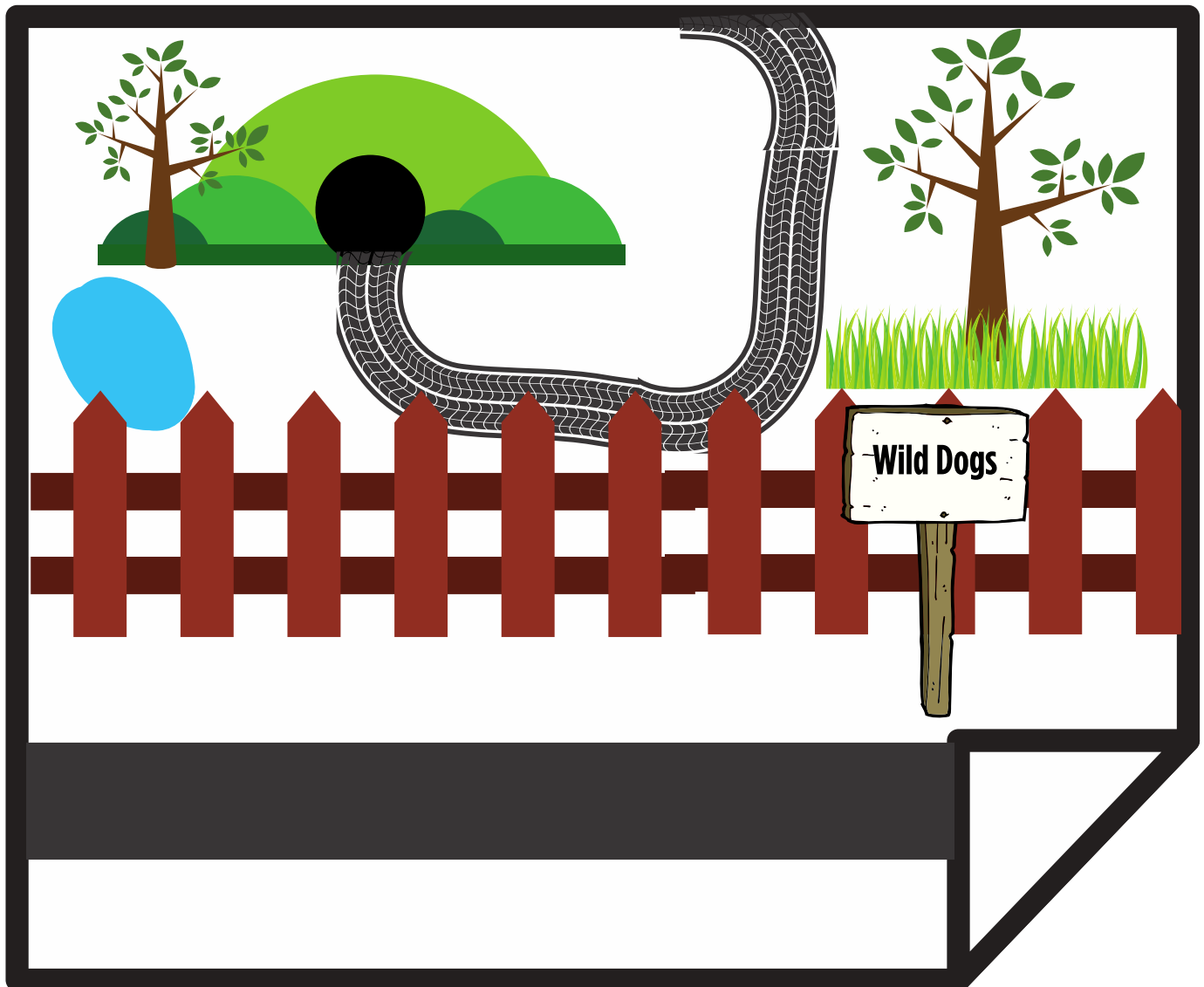
3. Bring in the animals:

After all of the exhibits are built, we will be ready to bring in the animals! This is my favorite part! Even though I am a zoologist, I have never seen an okapi up close before. Have you?



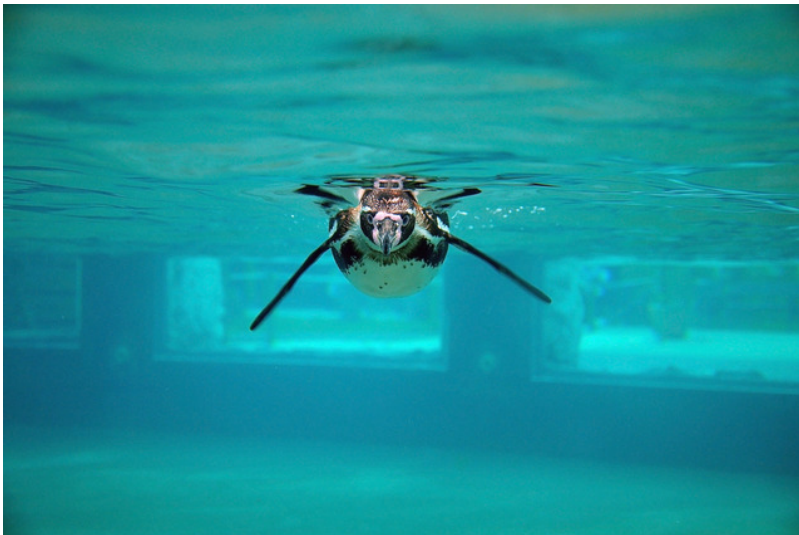
Step 1: Creating Diagrams

Here is the diagram I made of the wild dog habitat exhibit. Notice how their area is very long, with a trail inside the exhibit. The trail inside the exhibit is for the wild dogs to run on. There is also a trail outside of the exhibit for the people to walk around to see the wild dogs! Can you see where I put the den? Do you think it is a good spot?



Step 2: Building the Habitat Exhibits

Building the habitat exhibits took a lot of time. We just finished the last one, the habitat for the penguins. It took a lot of time to make a deep pool the penguins could swim in. Instead of just making a hole in the ground, we made one side of the pool out of thick glass. That way people at the zoo could watch the penguins as they dive into the water!



Zoo guests will love watching the penguins swim around their new exhibit!



The glass will let everyone see what penguins look like when they swim in the water!



Step 3: Bring in the Animals

All of the habitat exhibits have now been built! The most exciting day is finally here. The arrival of the animals! First, the penguins come to the zoo in big crates. Inside each crate are 4 penguins. We carry the crates into the habitat and release them. Right away, several of the penguins dive into the water! Others start exploring the land section of their new habitat.



Step 3: Bring in the Animals

Next come the okapi on a big truck. When we open the back of the truck, the okapi do not want to come out! They seem nervous. I bring some fresh plants for them to eat and put them just outside of the truck in the habitat. They still do not want to come out!



I then remembered how my friend told me they were shy, so I told everyone to leave the okapi exhibit area. After everyone was gone and it was very quiet, the two okapi walked off the truck and into their new home. I can hardly believe my eyes! Their head is shaped like a giraffe, and they have long necks, but they have the body and some stripes like a zebra!



Step 3: Bring in the Animals

After the okapi, the wild dogs were easy! They ran right into their new habitat! They all started sniffing and running around. I think all of the animals are going to do be healthy and safe in their new habitats here at the New Orleans Zoo!



**Which of my three new
animal exhibits would
you most like to come
visit?**

