



Smithsonian

Creating a Habitat



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New Worlds

Today is special. You are at a zoo, and there is so much to see! There are many creatures. Each **enclosure** is its own world. Each is a **habitat**, or home, for a different animal.

You see a mongoose. It comes out of its tunnel to eat an insect. You see a fox. It naps on a pile of rocks in the sunshine. You also see a rodent. It sits on a large branch in its enclosure.

Yes, today is special. You are at Smithsonian's National Zoo. At the Small Mammal House, you will see wonderful new worlds!


A fennec fox naps at the Small Mammal House.



A dwarf mongoose comes out of its tunnel at the Small Mammal House.



A degu rodent sits on a branch.

A close-up photograph of a Goeldi's monkey with dark, shaggy fur and bright orange eyes, perched on a thick, textured branch. The background is a soft-focus green, suggesting an enclosure. A large, diagonal red watermark reading "For Review Only" is overlaid across the center of the image.

A Goeldi's monkey sits on a branch in its enclosure.

Arts

The Perfect Fit

Enclosures are made to fit the needs of creatures. For example, a monkey needs a space that fits tall trees. Spaces are also designed with visitors in mind. They have large windows so that people can see inside.

To be happy and healthy, creatures need the right homes. At zoos, enclosures are their homes. They are made with creatures in mind.

When creating a zoo home, designers ask many questions. Should it be hot or cold? What kind of plants should be there? Should it have other creatures? These questions help designers meet animals' needs.

Designers find these answers by looking at creatures' **natural** habitats. Their zoo homes should **mimic** their homes in the wild. This takes time and research. Once that is done, animal keepers have to take care of the creatures.



Two black-footed ferrets come out of a tunnel.

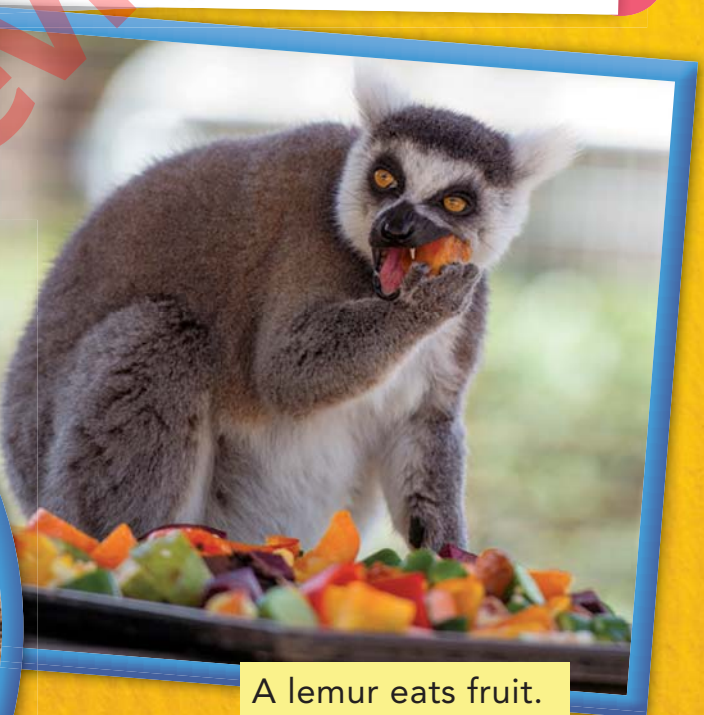
Daily Duties

Caring for creatures is a full-time job. Keepers arrive bright and early. They have many tasks to do.

Feeding

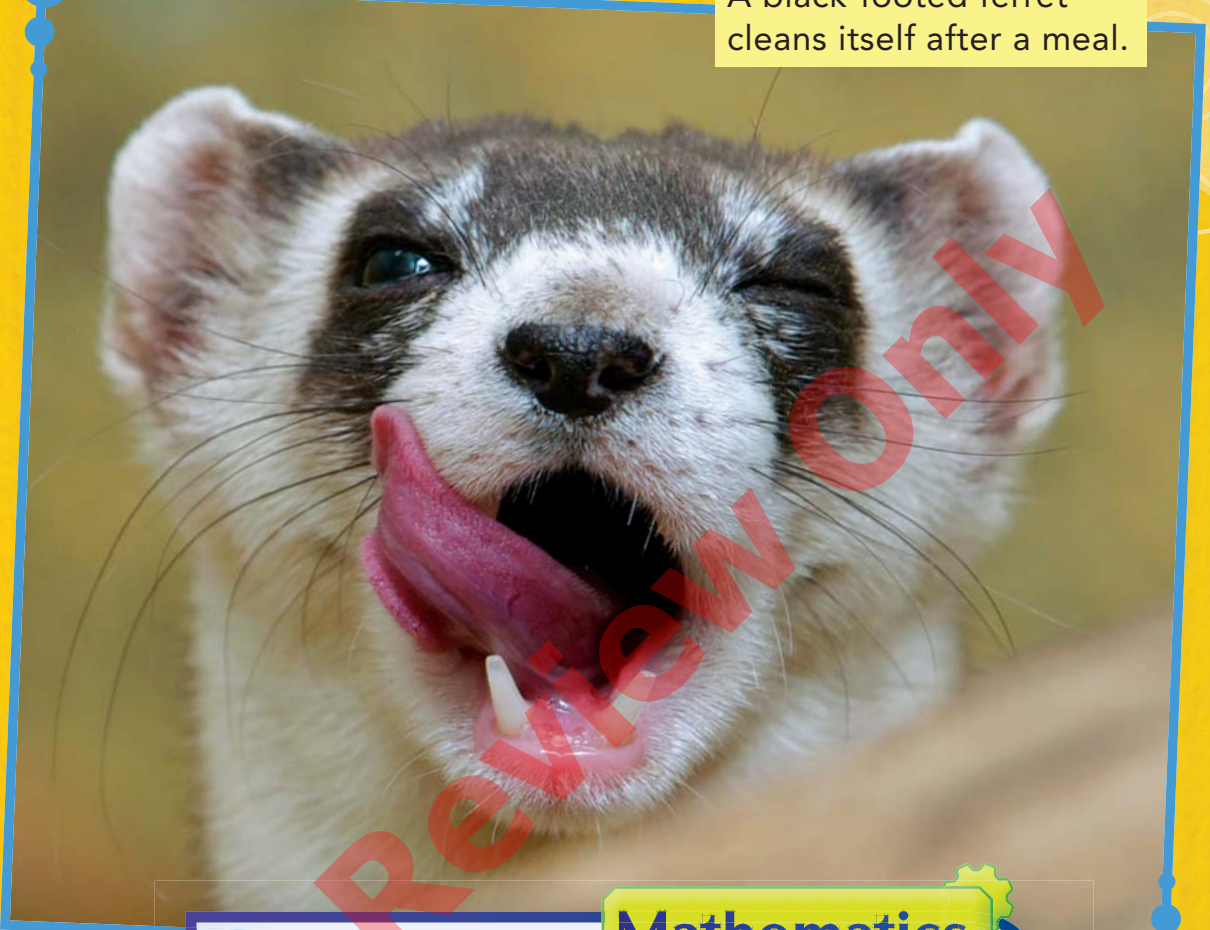
Keepers make meals for each creature. The food they make depends on what the creature eats in the wild. Some animals eat fruits and vegetables. Other animals eat meat. At the zoo, they get those meals too. Keepers want to mimic what each creature eats in the wild.

A creep of tortoises eats vegetables.



A lemur eats fruit.

A black-footed ferret
cleans itself after a meal.



Mathematics

A Proper Meal

In one year, one wild ferret can eat over a hundred prairie dogs! Keepers use that information to figure out how much food ferrets need each day. Then, keepers make sure they have the right amount of food to feed all the ferrets at the zoo.



STEAM CHALLENGE

Define the Problem

A young black-footed ferret is coming to your local zoo. It needs a special home. You have been asked to make a model of its habitat.



Constraints: Your model must be smaller than 30 centimeters by 30 centimeters (1 foot by 1 foot).



Criteria: Your model must mimic a ferret's natural habitat. It must have some kind of burrow, a place to sleep, and a place to eat.





Research and Brainstorm

Why should you research an animal before creating an enclosure? What is a black-footed ferret's habitat like in the wild? How do zoos help black-footed ferrets get ready for life in the wild?



Design and Build

Sketch your model. What purpose will each part serve? What materials will work best to build your model? Build the model.



Test and Improve

Show your model to your friends. Does it mimic a black-footed ferret's natural habitat? How can you improve it? Improve your design and try again.



Reflect and Share

Which parts of your model were successful? Where can you improve your model? How might you add technology to your habitat?