



**girl scouts**

# **brownies**

## Exhibit Guide

THE ACADEMY  
OF NATURAL SCIENCES  
*of* DREXEL UNIVERSITY

## WOW: Wonders of Water

### Ice Cold (page 25)

The Earth has two poles, a North Pole and a South Pole. Both are extremely cold and covered in ice. Sometimes you might see huge masses of moving ice. These are called glaciers.

Find two dioramas in North American Hall that depict polar animals:

- 1.
- 2.

### Extinct (page 39)

Visit the third floor and take a careful look at the birds in the dioramas. Don't recognize them? That's because they are all extinct! If an animal is extinct, that means it no longer exists.



The **Great Auk** was a flightless bird that became extinct in 1852. Although they look like penguins, they are not closely related birds.



Sadly, in 1878 the **Labrador Duck** was the first endemic (found nowhere else) North American bird to go extinct.



**Passenger Pigeons** lived in enormous migratory flocks until the early 20th century. Due to habitat loss and hunting, this pigeon went extinct in 1914.

Can you think of other animals that are extinct? List them below.

- 1.
- 2.
- 3.

## Deserts and Water (page 67)

Visit Asia Hall, on the second floor, and find the Desert of Borkou diorama. The Desert of Borkou is actually part of the Sahara, the largest desert in the world. Temperatures during the day may rise as high as 136° F, and drop by as much as 60° at night. Rainfall may total as little as 10 inches per year, making the desert a place of blinding, sand-filled winds that can cut plants and animals to pieces.

The plants and animals in the Borkou Desert Diorama are adapted to the fierce conditions of their environment. Animals get most of their water from their food. The animals' light colored fur reflects the heat of the sun, helping to keep them cool. The tortoise you see would venture out only in the cool of the night. Plants, like the bitter melon vine, grow close to the ground, helping to protect them from the fury of sand storms.

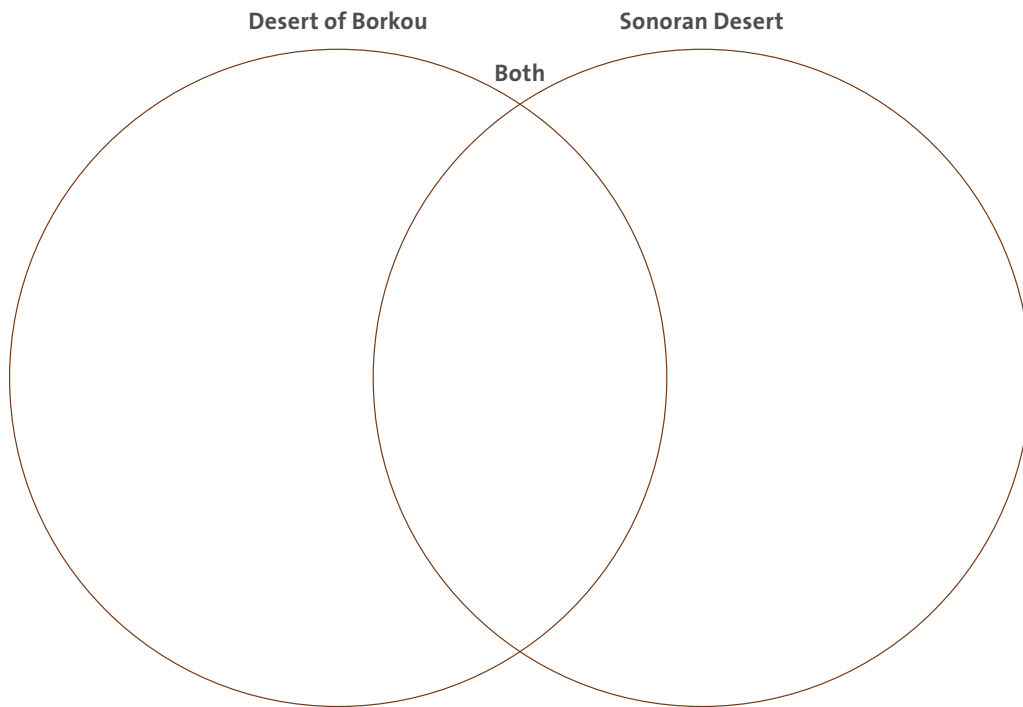
**Draw a picture of the Desert of Borkou diorama:**

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Visit the Desert of Diversity diorama in North American Hall. This is still a desert habitat, but it's quite different from the one you just saw. This diorama is set in the Sonoran desert, located in the southwestern United States. The Sonoran Desert averages between 3 and 16 inches of rainfall per year. The plants and animals in this desert are also adapted to the extreme environment. The cacti store water in their thick skin, and most plants have few leaves to reduce losing water during the desert's hot days. The saguaro cactus in the diorama provides food and water to desert animals.

**Draw a picture of the Sonoran Desert diorama:**

What do you notice that is different about the two deserts? What is similar? Write down characteristics specific to each desert on the sides, and write the similarities in the middle portion.



## All About Beavers (page 25)

Visit North American Hall, and make a stop at the Northeastern Pennsylvania diorama. Can you spot the beaver in this diorama? Beavers are the largest rodents in North America. They are famous for building dams and lodges. Do you notice anything strange looking? Perhaps, orange teeth? This is actually the true color of their teeth! Rodent incisors never stop growing. The outer orange layer is harder than the inner layer. As the animal chews, the teeth maintain a sharp chiseled edge as the inner layer wears down more quickly than the outer.

Carefully look around the diorama. Look up in the trees and down on the ground. Can you find evidence that a beaver has been chewing? If so, what did you notice?



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## Brownie Badges

### Bugs



#### Step 1: Talk to a bug specialist!

Entomology is the scientific study of insects. The Academy has a huge Entomology Collection. The department's collections currently contain more than 3,500,000 specimens. Although those specimens might not be alive, *Outside In* houses hundreds of live insects for everyone to see!

Visit *Outside In* and find an insect you would like to know more about. Ask our very knowledgeable staff some questions, and fill out the box below.

Insect: _____
Where does it live? _____

#### Step 3: Watch bugs in action!

Observe three different bug enclosures in *Outside In*. Take a close look and see what the insect(s) is/are doing. For example, do you see a beetle carrying food or a roach crawling on bark? **Record your observations.**

Enclosure #1	Enclosure #2	Enclosure #3

## Step 4: Draw a Cocoon

Visit the *Butterflies!* exhibit and look inside the pupa chamber where butterflies and moths are kept while they finish metamorphosis. Once they emerge, they are released into the exhibit. Ask a staff person for help differentiating between a cocoon and a chrysalis. What are some differences that you see? Ever wonder what it looks like inside a cocoon or chrysalis? Draw some of the cocoons and chrysalises from the pupa chamber in the space below. Draw one with the developing moth or butterfly inside.



## Step 5: Visit a museum with a bug collection.

Venture into *Outside In*. Look at all the wonderful insects and arachnids on display! How are they grouped? Ask our friendly staff how they prepare the insects to be put on display. Which insect do you think is the strangest and why?

**Discuss with your troop.**

**While you are in *Outside In*, complete the following tasks:**

- Find the queen bee in our bee colony
- Hold or touch an insect
- Listen to a Madagascar hissing cockroach hiss
- Count the legs on a scorpion

## Brownie Badges

### Senses



#### Step 1: Do a Scavenger Hunt!

Visit Africa/Asia Hall. Look at all the wonderful dioramas and how detailed they are.

#### Can you find the following?:

- ▶ Find a diorama that shows a predator and prey.
  
- ▶ Name the melon in the Desert of Borkou diorama.
  
- ▶ Find one animal that lives in the grassy plains.
  
- ▶ What color is the mummy's ring?
  
- ▶ Find the only member of the cat family that lives in social groups.
  
- ▶ Find one insect.
  
- ▶ Find an animal that is NOT a mammal.
  
- ▶ Find a diorama that has a mammal and a reptile.
  
- ▶ Find the barn owl hidden in the night.

## Step 2: Listen

There are a few places in the Academy that have sounds constantly playing. Start in North American Hall and walk down toward the Moose diorama. Listen closely. What types of animals can you hear? Are there sounds you can't identify? All the sounds are animals that live in North America. Once you are done, visit *Outside In* and listen to the sounds there.

**Record some examples of the animals you think made the noises in each space.**

North American Hall

*Outside In*