

Lemurs

Lemurs are small primates that are only found on the island of Madagascar and the Comoro Islands. There are five families of Lemurs and about 50 different individual species that make up those families. Unlike monkeys, Lemurs cannot hang by their tail but do have opposable thumbs and toes. The Lemur's physical appearance most closely resembles that of our ancient primate ancestors.

Challenge

Age 9 +

Zoo planners designed the tropics trail with light panels that increase light intensity during winter to mimic the 11-13 hours of sunlight found in the Tropics. This allowed Lemur zookeepers to add plants native to the Lemur's home of Madagascar such as the Dragon and Umbrella Tree. These plants were chosen because they are durable, easy to clean.

Zoo keepers need your help to determine if the location of the Madagascar plants in the exhibit were a good idea. They want to avoid high activity areas so the plants don't get ruined by Lemur activity. Read the ethogram, a chart that shares the behavior and location of the lemurs every 5 minutes for an hour. Then, choose one lemur to watch for the remaining 5 minutes to help finish the data in order to suggest where to put the plants.

X = Location of the lemurs

| Red Ruffed Lemur Location in Exhibit | 5 min | 10 min | 15 min | 20 min | 25 min | 30 min | 35 min | 40 min | 45 min | 50 min | 55 min | 60 min |
|--------------------------------------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Upper Back Rock Ledge | X | | | | | | X | | | | | |
| Left Side Ledge | | | | | | | | | | | | |
| Rocks on Right Side | | | | | | X | | | | | | |
| Tree | | | | | | | | | X | X | | |
| Front Branches | | | X | X | | | | X | | | | |
| Hidden in small plants | | X | | | X | | | | | X | | |

Which location should the zookeepers have the plants?

Which location would be a bad decision to place the plants?

Age 6 - 8

There are two types of Lemurs that call the MN Zoo home; the Ring-Tailed Lemur and the Red Ruffed Lemur. Where do the Ring-Tailed Lemur and the Red Ruffed Lemur like to spend most of their day?

1. It depends on the Lemur. Ring-Tailed Lemurs prefer the ground floor where Red Ruffed Lemurs like to spend their days lounging in the trees.
2. Both types of Lemurs spend their days lounging in the trees.
3. Both types of Lemurs spend their days scouring the rainforest floor for extra food.
4. It depends on the Lemur. Ring-Tailed Lemurs like to spend their days lounging in the trees and the Red Ruffed Lemurs prefer the ground floor.

Age 3 - 5

There are two types of Lemurs in our exhibit. Can you spot which two live at the MN Zoo?
(images only - when selected, show name)

1. Red Ruffed Lemur
True
 2. Common Black Lemur
False
 3. Red-Fronted Lemur
False
 4. Ring-Tailed Lemur
True
-

Crocodiles

Crocodiles are large aquatic reptiles and can be found throughout Africa, Asia, the Americas and Australia. While these reptiles can be commonly confused with Alligators, they belong to separate families. If you take a close look at a crocodile's face, you will notice that it has a bit of a V-shape to it. Their snouts are longer and narrower than an Alligator which also has more of a U-shaped snout.

Crocodiles across the world are suffering from habitat destruction and hunting for their meat and skin. Some species, depending on the region are currently considered Vulnerable but additional research is needed to help address their conservation needs as it varies from area to area.

Challenge

Age 9 +

Africa is home to three species of crocodiles; the Nile Crocodile, the Dwarf Crocodile and the Slender-Snouted Crocodile. Here at the MN Zoo we have a pair of Dwarf Crocodiles. Dwarf crocodiles love to hang out in shallow streams and swamps. Which of the following facts makes these animals perfect for spending large amounts of time in the water?

Select all answers that are true:

1. Crocodiles have see-through eyelids they can close to protect their eyes in the water without blocking their vision.
True

2. A special valve in a crocodile's throat keeps it from swallowing water when it swims with its mouth open.
True
3. Some crocodiles can stay under water for an hour without coming up for air.
True
4. Crocodiles have small fins on their side to help propel them through the water.
False

Age 6 - 8

Africa is home to three species of crocodiles; the Nile Crocodile, the Dwarf Crocodile and the Slender-Snouted Crocodile. Each lives in a different type of habitat. Their skills and bodies reflect how and where they live. Can you match up the type of crocodile with their special skill?

1. This crocodile is best adapted to hunt fish.
Answer: Slender Snouted Crocodile
2. This crocodile lives in shallow streams.
Answer: Dwarf Crocodile
3. This crocodile is able to take down zebras and warthogs
Answer: Nile Crocodile

Age 3 - 5

There are three different species of African Crocodiles, what kind do you think we have here at the MN Zoo? Take a look at the exhibit and take a guess!

1. Slender Snouted Crocodile
 2. **Answer: Dwarf Crocodile**
 3. Nile Crocodile
-

White Cheeked Gibbon

Gibbons are not monkeys, they're small apes. Apes don't have tails while monkeys do. They also have a flatter, more human-like face, larger bodies, and their young develop more slowly than other primates. Gibbons avoid crossing water, and major rivers usually separate each gibbon species in the wild. To drink, they dip their hands in water or rub their fur against wet leaves, then slurp up the water. That's why the moat around the exhibit helps keep our Gibbons safe on the island.

Age 9+

In the wild, gibbons spend a lot of time foraging for food. Keepers provide dietary enrichment by adding food items to the gibbons main diet with special treats like "monkey brownies or "gibbon cupcakes." Sometimes oatmeal paste is smeared on branches in their exhibit. Gibbons tend to respond with more excitement when their treats are hidden. Food may also be hidden in paper bags or have special puzzle feeders to encourage foraging behaviors.

To help the zoo keepers figure out the best place in the exhibit to put a dietary enrichment for the Gibbons, collect data each minute about the Gibbon's behavior and location for 5 minutes. Use the behavior key below.

Behavior Key:

- B: Bathing**
- C: Calling/Howling**
- D: Dominance**
- E: Eating**
- G: Grooming**
- R: Resting**
- S: Swinging**
- S: Socializing**
- Z: Sleeping**

| | Behavior | Location in Exhibit |
|----------|----------|---------------------|
| Minute 0 | | |
| Minute 1 | | |
| Minute 2 | | |
| Minute 3 | | |
| Minute 4 | | |
| Minute 5 | | |

Using your data, where would you suggest to put the dietary enrichment?

_____.

Age 6 - 8

It's easy to tell who's who in a pair of White-cheeked gibbons. The males and females are different colors. Male White-cheeked gibbons are black with white cheek patches, while females are buff with a black spot on the top of the head. When White-cheeked gibbons are infants, they are colored to match mom. When they reach six months of age, they turn black like their dad. Females turn back to buff when they reach maturity.

Take a look at this baby gibbon. What color will it be when it grows up?



1. Buff with a black spot on its head
2. Black with white cheeks
3. Buff with a black belly
4. **Answer:** All baby gibbons look like that so you can't tell what it will

look like as an adult

Age 3 -5

It's easy to tell who's who in a pair of White-cheeked gibbons. The males and females are different colors. Male White-cheeked gibbons are black with white cheek patches, while females are buff with a black spot on the top of the head.

Match the picture of the White-cheeked gibbon to their gender:



Female



Female



Male



Male

Birds of the Tropics

All Ages

How many birds can you spot throughout the tropics trail? Select the ones that you see!
(images for all birds)

Rhinoceros Hornbill
Bali Mynah
Common Shelduck
Crested Oropendola
Dhyal Thrush
Elegant-crusted Tinamou
Keel-billed Toucan
Malay Great Argus
Victoria Crowned-pigeon
Bleeding Heart Dove
Nicobar pigeon
Black-naped oriole
Black-necked stilt
Fairy Bluebird

Tropical Reef

The Pacific reef tank or Tropical Reef in the Tropics building has similarities to the Atlantic Reef exhibit in Discovery Bay. Both tanks exhibit artificial coral reefs. The difference is in the Oceans they represent. The largest difference is diversity of species. Estimates of 65 to 75 species of coral and 500 to 700 reef associated fish species live in the extended Atlantic/Caribbean coral reef area. This is in contrast to the over 700 coral species and over 3,000 reef associated fish in the Indo-Pacific coral reefs.

The Atlantic Reef or Shark Reef houses predators, large sharks and fish. The Tropical Reef contains sharks and fish also, but these sharks are smaller. The Tropical Reef sharks feed mainly on invertebrates. The Atlantic Reef sharks are suited to eat fish. Both natural reefs, Atlantic and Pacific, have predators to keep populations in balance.

Challenge

Age 9+

Coral reefs are like underwater rainforests. In what ways are coral reefs similar to rainforests? Select all facts that are true:

1. True: Both are wondrous, complex ecosystems.
2. True: They shelter the most diverse collection of plants and animals on earth.
3. False: Reefs and tropical rain forests occur in warm and cool climates.
4. True: Creatures that reside in them depend on each other to live.
5. False: The rainforests and reefs are growing and expanding each year.
6. True: Humans are their worst enemy.

Bonus: What was your favorite fish that you saw in the Tropical Reef?

Age 6 - 8

There are many different types of fish and sharks that live in our Tropical Reef. Which of these sharks do you see living in our Tropical Reef? (images for all sharks with names)

Sand Shark
Tiger Shark
Hammer Head Shark
Nurse Shark
Great White Shark

Bonus: What was your favorite fish that you saw in the Tropical Reef?

Age 3 - 5

There are many different types of fish and sharks that live in our Tropical Reef. Count how many different kinds of fish and sharks you can see!

How many different kinds of fish did you see? _____

How many different kinds of sharks did you see? _____

Nocturnal Animals

Nocturnal organisms are those that are active mainly at night and sleep during the day. Their activity pattern occurs in twenty-four hour cycles, known as a circadian rhythm. Nocturnal animals include bats, cats, owls, mice, scorpions, opossums, raccoons, coyotes, cockroaches, and moths.

Many nocturnal animals have specialized adaptations for their nighttime activities. The eyes of most nocturnal animals are larger than those of diurnal animals, helping them to function well in low light. Many nocturnal animals have large ears that are exceptionally sensitive. An acute sense of hearing is helpful when sight cannot be relied on in the darkness. Similarly acute senses of smell, taste, and touch also aid in overcoming the disadvantages of low light conditions.

Challenge

Age 9+

Minnesota Zoo is proud to have helped write the Animal Husbandry Manual for Sloths, a how to guide on taking care of sloths in captivity. This is important to the animal's survival in a zoo and the reason we have a winter sloth exhibit! Sloths require outside heat to maintain their 75-91 degree body temp. The Minnesota Zoo needs to keep the Sloth indoors because of our varying temperatures. To ensure that our sloths are enjoying their entire exhibit we need help tracking where our sloths like to hang out during the day. Take a look and choose the area of the exhibit that they are currently enjoying. (images for each area with short descriptions)

1. The rocks at the bottom right corner of the exhibit
2. The tree branches on the right hand side of the exhibit
3. The taller tree on the left hand side of the exhibit
4. The low ropes on the bottom left hand side of the exhibit

Poll results of recent selections

Take a look at the results from some of our other guests

Bonus: How do you measure up against our python? Look for the markings on the floor and see how you compare to the size of our python!

Age 6 - 8

By keeping this section of the Tropics Trail relatively dark, you are able to see some of our nocturnal animals as if it were night time. What types of animals are you able to see? Keep in mind, it can take a bit of time to adjust to the different light.
(Choose images of the animals that they find and it displays a fun fact.)

Slow Loris: Slow lorises often hang upside-down from branches by their feet so they can use both hands to eat.

Two-Toed Sloth: There was recent baby sloth born at the MN Zoo. See if you can spot the baby holding on close to its mother.

Chinchilla: They use their whiskers to see. Their eyes are underdeveloped and use their whiskers instead to help them see and feel the things around them. This makes it much easier to move around at night when there is no light.

Burmese Python: When they are young, they are home to both the ground and the trees but as they grow bigger, they tend to spend more time on the ground.

Bonus: How do you measure up against our python? Look for the markings on the floor and see how you compare to the size of our python!

Age 3 - 5

There are a handful of nocturnal animals throughout this area including the Slow Loris, the Two-Toed Sloth, the Chinchilla and the Burmese Python. Start the countdown (1 minute) and see how many animals you can find.

Timer (1 minute)

How many animals were you able to find? _____

Bonus: How do you measure up against our python? Look for the markings on the floor and see how you compare to the size of our python!