MARYLAND ZOO

ZooTrek : Adaptations

Grades 6–8

HOW TO USE THE ZOO TREK

Use the animals and exhibits highlighted in this *Zoo Trek* to help guide you on your visit through The Maryland Zoo.

1. Find the highlighted species on the Zoo Map to help you plan your route. You do not need to follow the *Zoo Trek* in a particular order.

2. At the exhibit for each featured species, read through the *Zoo Trek* information. Take turns reading the questions aloud, and talk about your answers with your classmates.
   Remember, there may not always be one "right" answer!

3. Many of the animals are well camouflaged! **The Viewing Tips** can help you find them in the exhibits.

4. Use the **Explore Some More** hints to learn about other amazing animals!

Keep in mind that every day is different at the Zoo. Some animals may be off exhibit during your visit.

Chaperones, please keep your group together and supervise the students at all times.

START YOUR TREK!

Bald Eagle

These raptors are big, strong, opportunistic predators—they'll eat what they can get! Fish are their main food source, and eagles swoop down to snatch fish in their talons from the water's surface. But other foods are on the menu as well: smaller birds, crustaceans, amphibians, reptiles, and small mammals. They hunt, scavenge, and even steal prey from other animals.

Observe

In what part of the enclosure do you see our bald eagle, Vega? She tends to prefer a high perch.

How do you think that behavior—perching up high—is an adaptation for raptors like Vega?

Think About It

Visit the eagle's avian neighbor at *Polar Bear Watch*: the common ravens.

How do their beaks differ from Vega's?

What effect do you think these differences have on how eagles and ravens get and consume food?

Viewing Tip

Be sure to look high up in her enclosure to spot her.

Explore Some More

Visit the African Aviary and Marsh Aviary to see a wide variety of birds. Compare the beak types and think about what the differences mean for how—and what—the birds eat.

River Otter

With nostrils that close underwater, webbed feet, a streamlined body, and a powerful tail, river otters are amazingly well adapted to life in the water.

Observe

What's that smell?! Otters rub scent from a special gland to mark their territories.
They also re-use a particular location as a latrine—much like humans, in fact! The Zoo's otters prefer the area up at the glass as their latrine.

Think About It

Can you think of another animal that uses scent to mark its territory?

Hint: You or a friend might have one at home!

Viewing Tip

The otter often naps in the hammock on the left wall.

Explore Some More

Otters are aquatic mammals. Can you find a flying mammal here at the Zoo?

Hint: Check inside The Cave!

Spur-thigh Tortoise

Water is scarce in the in the wild habitat of spur-thigh tortoises. They are adapted to get all the water they need from their food.

Observe

The tortoises are excellent diggers, allowing them to build burrows like those in the exhibit.

How can a burrow be useful in a hot, dry climate?

Think About It

In their dry natural habitat, food can be hard to find.

How can a tortoise's slow movements be an adaptation for such conditions?

Viewing Tip

The tortoises sometimes hang out in the burrows or on the small hill on the left side of the enclosure.

Explore Some More

Tortoise or turtle? They are actually all turtles! But "tortoises" are turtles adapted for land. Check out the Chimp Forest to find water turtles. How are tortoises and water turtles different?

Addra Gazelle

Gazelles are a type of antelope. They are an important prey species for many predators on the savanna.

Observe

With such long legs these animals can rely on speed to outrun predators. A cheetah may be able to reach higher speeds than a gazelle, but the gazelle can maintain high speeds longer.

Think About It

Compare the eye placement of the gazelles with those of their neighbor across the boardwalk--the cheetah. *How does the eye placement of predator and prey differ?*

Viewing Tip

The gazelles share a yard with kudu. The gazelles are brown and white.

Explore Some More

Antlers or horns? Antlers fall off and grow back. But true horns are part of an animal's skull.

Find another animal at the Zoo that has horns.

Porcupine

Many people think porcupines shoot their quills to defend themselves, but that's not really the case. The quills actually fall out easily. So if a predator gets just a bit too close, the quills can snag it.

Observe

A porcupine's quills are stiff and sharp, but they are actually made of the same material as your hair.

Think About It

When it feels threatened, a porcupine may lift up its quills and turn its back.

Why do you think it moves that way?

Scan the QR code for a short video to see the porcupine defend itself.

Viewing Tip

Porcupines are nocturnal. They are often asleep in their burrow.

Explore Some More

The opposite of *nocturnal* is *diurnal*. Some animals are *crepuscular*, or active at dusk and dawn. Check out the sitatunga—a crepuscular animal—at the entrance to *African Journey*.

African Elephant

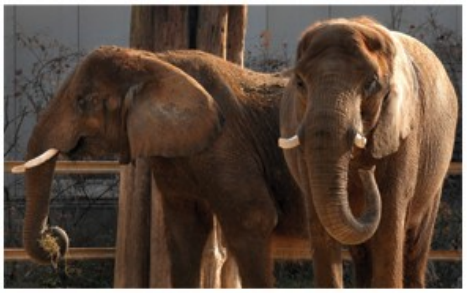
An elephant's trunk has more than 40,000 muscles. (By comparison, the whole human body has fewer than 1000!) All those muscles let the trunk act as both a bulldozer and delicate tweezers.

Observe

Watch one of the elephants use its trunk to pick something up. Or scan the QR code to get a closer look.

Think About It

How is the tip of an elephant's trunk like a hand?



Viewing Tip

The lower level viewing area gets you closer to the elephants, but the overlook generally gives a better view.

Explore Some More

Female elephants live in groups called herds. Find an animal that lives in a group called a "crash."

Hint: Check out the African Watering Hole.

Panamanian Golden Frog

Due to a disease outbreak in Panama, these bright frogs are thought to be extinct in the wild.

Observe

Does the frog's colors help it blend in or stand out?

These colors are the opposite of camouflage--it's called *aposematic coloration*, and it is common in poisonous animals.

Think About It

What do you think is the function of aposematic coloration?

Viewing Tip

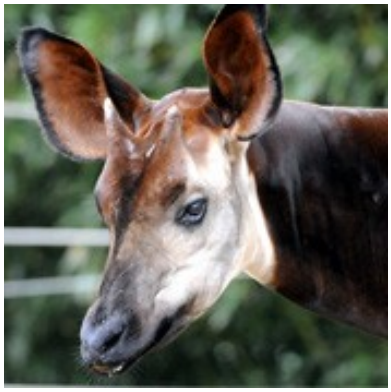
Sometimes the frogs hang out in clumps near the back of the exhibit.

Explore Some More

Golden frogs live near streams and waterfalls. Look for another animal inside the Chimp Forest that has a waterfall in its exhibit.

Okapi

Believe it or not, okapis actually are not part zebra! An okapi's color pattern is an adaptation for its natural forest habitat.



Think About It

Giraffes and okapis are close relatives. Why, then, do you think their coat patterns are so different?

Hint: Look at the signage to compare their habitat information.

Observe

An okapi's tongue is about a foot long! Its tongue is prehensile, which means it can grab—like a hand.

Viewing Tip

If you don't see the okapi outside, look inside the Giraffe House.

Explore Some More

Check out the other residents of the Giraffe House. In spite of the long neck, giraffes still have the same number of neck bones as we do: 7!

THANK YOU FOR VISITING THE MARYLAND ZOO IN BALTIMORE!