Elephant Escapades

Audience
Activity designed for 10 years old and up

Goal
Students will learn the differences between the African and Asian elephants, as well as, how their different adaptations help them survive in their habitats.

Objective
- To understand elephant adaptations
- To identify the differences between African and Asian elephants

Conservation Message
Elephants play a major role in their habitats. They act as keystone species which means that other species depend on them and if elephants were removed from the ecosystem it would change drastically. It is important to understand these species and take efforts to encourage the preservation of African and Asian elephants and their habitats.

Background Information
Elephants are the largest living land animal; they can weigh between 6,000 and 12,000 pounds and stand up to 12 feet tall. There are only two species of elephants; the African Elephants and the Asian Elephant. The Asian elephant is native to parts of South and Southeast Asia. While the African elephant is native to the continent of Africa. While these two species are very different, they do share some common traits. For example, both elephant species have a trunk that can move in any direction and move heavy objects. An elephant's trunk is a fusion, or combination, of the nose and upper lip and does not contain any bones. Their trunks have thousands of muscles and tendons that make movements precise and give the trunk amazing strength. Elephants use their trunks for snorkeling, smelling, eating, defending themselves, dusting and other activities that they perform daily. Another common feature that the two elephant species share are their feet. Elephants walk on their toes and have a thick pad on the bottom of their feet that act like a shock absorber. This "shock absorber" protects the legs and toes from braking under the pressure and weight of the elephant. Elephant's legs are also stacked in a vertical position under their body which further protects them

from buckling under the pressure of their own weight. These leg adaptations are important because elephants migrate and need to be able to walk long distances. Another shared trait between the two elephant species are tusks. Tusks are composed of ivory and are modified teeth. The tusks upper incisors that will continually grow throughout their lifetime. They can grow up to several inches per year. While tusks are a shared trait between African and Asian elephants, only the male Asian elephants have tusks; both male and female African elephants can have tusks.

Despite the shared traits, African and Asian are two very different species. The easiest way to tell the difference between an Asian elephant and an African elephant is by their ears. African elephants have much larger ears than Asian elephants and they are shaped like the continent of Africa; Asian elephants have small round ears. Another way to tell them apart is by their trunks. The Asian elephants have a one-finger trunk while the African elephants have a two-finger trunk. Another interesting difference between these two elephant species is their skin. An African elephant has more wrinkled skin than Asian elephants. These wrinkles help the skin retain moisture which is important for the African elephant since they live in such a hot climate.

Asian Elephants: The habitat that Asian elephants can live in range from forests to grasslands that are either very wet or very dry. However, they are primarily considered forest animals. They are very adaptable and have learned to survive on resources that are available depending on the area. Asian elephants are found in India and Southeast Asia, including Sumatra and Borneo. Asian elephants are herbivores, meaning they eat only plants and spend most of their days feeding. These elephants form herds of 3—7 females with the oldest female being the matriarch, or the leader. Asian elephants have a small finger-like projection at the end of their trunk, ironically called a finger. The finger allows the Asian elephant to have better precision when picking up vegetation.

African Elephants: African elephants are primarily found in the savannahs of Africa, but they can also occur in the rainforests of central and west Africa and tend to be larger than their Asian counterparts. Just like the Asian elephants the African elephants have matriarchal herds that can range in numbers. These elephants are also herbivores. The African elephant has two fingers on their trunks to help them pickup vegetation and other items. The African elephant species can be split into two subspecies: Savanna (bush) elephant and the forest elephant. The Savanna elephants are larger than the forest elephants and their tusks tend to curve up and outward, while forest elephants have straighter tusks that point downward. The Forest elephants are found in the Congo Basin in central Africa. The ears of an African elephant are much larger than those of Asian elephants. This is because the African elephant lives in a much hotter climate than the Asian elephant and their ears aid in the dissipation of heat. In fact, African elephants can increase the blood supply to their ears and then flap them around to lose body heat.

Materials Needed

- Pen/pencil
- Elephant Comparisons sheet
- What Species Am I sheet
- Adaptation Questions sheet

Length of Activity

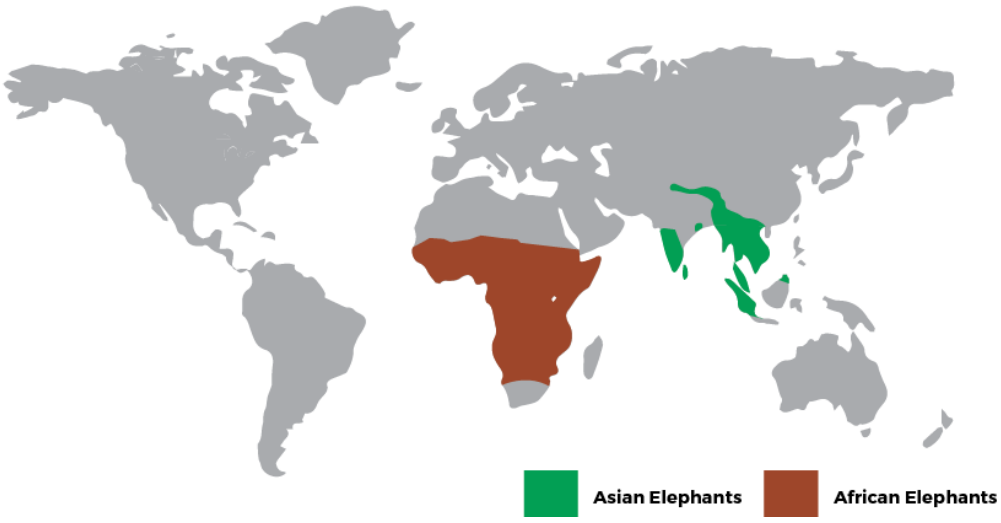
30 minutes

Procedure

- After reading the background information, use the activity sheet and see if, by memory, you can identify the differences between the African and Asian elephant.
- Fill in the blanks on the comparison sheet using the words from the word bank.
- Then look at the pictures of the African and Asian elephants. Try to spot the differences in their shape, coloring and size and see if you can guess which ones are African and which ones are Asian.
- Write which species you think they are below the picture
- After identifying their differences and matching the pictures test your knowledge of their adaptations. Answer the adaptation discussion questions by filling in the blank.

World Map of the Continents

Map of the Range of African and Asian Elephants



Elephant Comparisons

Word Bank

Large Ears
One Finger Trunk
Male-only Tusks
Forest Habitat
Male & Female Tusks
Savannah Habitat
Two Finger Trunk
Small Rounded Ears

African Elephant	Asian Elephant

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What Species Am I?

Adaptation Discussion Questions

1. Why do African elephants have such large ears?

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2. Why is it important for African elephants to have wrinkly skin and not Asian elephants?

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3. Why do elephants need a shock absorber on the bottoms of their feet?

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Answer Key

African Elephant	Asian Elephant
Large Ears	Small Rounded Ears
Two Finger Trunk	One Finger Trunk
Male & Female Tusks	Male Only Tusks
Savannah Habitat	Forest Habitat

Asian Elephant

African Elephant

African Elephant

African Elephant

Asian Elephant

Asian Elephant

Discussion Question Answers

1. The ears of the African elephants help keep them cool in a hot dry climate. They can increase the blood supply to their ear which aids in heat dissipation. They also flap their ears back and forth to act as a fan, the hotter the temperature, the faster they flap.

2. African elephants have wrinkles to help retain moisture in their skin. They live in a dry climate and if they were not able to retain moisture their skin would dry out and crack.

3. Elephants weigh thousands of pounds and migrate hundreds of miles each year. It is important that they have sturdy legs that can carry them long distances and hold their weight. Therefore, elephants have a thick pad on the soles of their feet that act as a shock absorber and keeps their legs and toes from braking under pressure.