

# MASAI GIRAFFE

## TASK #1

### ANIMAL RESEARCH

<b>Climate</b>	<ul style="list-style-type: none"> <li>• Dry</li> <li>• Rainfall varies (periods of drought or heavy rainfall)</li> <li>• Likes warmer, year-round climates, average temperatures between 77-86°F</li> </ul>
<b>What covers their body? How is this helpful?</b>	<ul style="list-style-type: none"> <li>• Covered in short fur</li> <li>• Spots act as thermal windows to release excess heat through a network of blood vessels</li> <li>• Being covered in spots helps with camouflage</li> </ul>
<b>Social Dynamic</b>	<ul style="list-style-type: none"> <li>• Has different combinations of groups</li> <li>• Lives alone or in herds of up to 100 giraffes</li> <li>• Zebras, antelope, and wildebeests often congregate near giraffes to take advantage of the giraffes ability to see far distances</li> </ul>
<b>Appearance</b>	<ul style="list-style-type: none"> <li>• Newborn: Height: 6 ft. / Weight: 100-150 lbs.</li> <li>• Adult: Height: 14-19 ft. / Weight: 1,750-2,800 lbs.</li> <li>• Tallest land animal</li> <li>• Masai giraffes have spots that can look like oak leaves, fur is darker than others</li> <li>• Ossicones are bony protrusions on the top of their heads</li> </ul>
<b>How do they move? How would that help them in their habitat?</b>	<ul style="list-style-type: none"> <li>• Walks and gallops</li> <li>• Moves legs on one side of their body at the same time</li> <li>• Runs up to 35 miles per hour</li> </ul>
<b>How do they care for their young?</b>	<ul style="list-style-type: none"> <li>• Babies drink milk until up to 16 months</li> <li>• Mothers with similar aged calves will stay together, forming a creche (a nursery where babies are cared for)</li> <li>• Mothers teach their young what to eat and protect them from predators</li> </ul>
<b>What do they eat? What adaptations do they have to support their diet?</b>	<ul style="list-style-type: none"> <li>• Herbivores (leaves, bark, seed pods, and fruit)</li> <li>• Likes to eat acacia tree leaves</li> <li>• Can go without water for several weeks if eating enough vegetation</li> <li>• Tongue is prehensile; can grasp and hold onto food items</li> </ul>
<b>Habitat</b>	<ul style="list-style-type: none"> <li>• Open woodlands</li> <li>• Grassy plains</li> </ul>



## **TASK #2**

### **MASAI GIRAFFE NEEDS IN A ZOO**

After learning about what Masai giraffes need in the wild, students are prompted to write things that Masai giraffes would need in a zoo. Below are suggested answers but students are encouraged to be creative.

- Enough space for a group to live together
- Large space to move between foraging areas
- Shade structure
- Temperature controlled areas
- Trees and grasses
- Areas where browse (branches and twigs to eat) can be delivered
- Water source
- Can live with other herbivores (zebras, antelope, etc.)

### **MASAI GIRAFFE ENRICHMENT**

#### **Suggested Enrichment:**

- **Environmental Enrichment-** Hanging logs, firehose, chalk drawings, leaf litter, and piles of snow
- **Food Enrichment-** Approved browse (honeysuckle, Bradford pear, grapevine), popcorn, approved vegetables and fruit, puzzle feeders, lick boards, and hanging feeder balls
- **Manipulative Enrichment-** Tires, traffic cones, large boomer balls, and hanging bucket lids
- **Social Enrichment-** Training with animal care staff, puppets, interacting with other animals, and guest feeding

#### **Things to Avoid:**

- Continuous use of the same form of enrichment
- Items that they can trip on
- Items that cause entanglement
- Small enrichment or small pieces that could be ingested (string, screws, soft plastics)



### TASK #3

## MASAI GIRAFFE CONSERVATION STATUS

**Conservation Status:** Masai giraffes are listed as an Endangered Species by the IUCN.

**Countries found:** Masai giraffes are found in central and southern Kenya and throughout Tanzania.

**Has the animal's range changed over time?** Human activities like agriculture and urbanization have fragmented the natural habitat of the Masai giraffe, isolating populations and limiting their movement.

**Did your animal's population change?** Yes, their population has decreased.

**Threats:** Habitat loss and poaching are the main threats contributing to the Masai giraffe's population decline.



**HISTORICAL RANGE**



**CURRENT RANGE**

#### **HISTORICAL / CURRENT RANGE:**

The range of Masai giraffes has decreased in recent years, primarily due to poaching and habitat loss.



## **TASK #4**

### **MASAI GIRAFFE DIET**

Giraffes are large herbivores found on the African savanna. They eat only plants. Some of their favorites include the leaves, branches, and shoots of trees and shrubs like the acacia tree. At the Zoo, they mostly eat hay and a variety of browse, or different trees and bushes that are safe for them. Prairie bundle flower is a close substitute for the acacia tree, so our giraffes love to eat lots of it! A specially formulated giraffe grain helps to supplement their nutritional needs. Our giraffes have several feeding and browsing opportunities throughout the day, which students will work to plan through this activity.

### **EXTENSION ACTIVITY:**

Each giraffe is offered a specific total amount of grain each day, split between three equal feedings. Using this information, complete the diet chart on page 44 for a juvenile giraffe by dividing their total amount of grain between the three feedings, then finding the total weekly amount for each feeding.

## **TASK #5**

### **HABITAT DESIGN**

Students are encouraged to design a zoo habitat that satisfies the natural behaviors of giraffes. Below are a few suggestions.

**Natural Behaviors:** Browsing, walking, exploring, socializing with the same and different species, being cautious of new experiences

- Giraffes are the tallest living animals on Earth and their spaces should be made with their unique size in mind! Space required for an individual giraffe varies from 900 to 1,500 sq. ft. Space should increase 25% with every additional giraffe (about 300 sq. ft.).
- Giraffes are known to startle easily, so their indoor and outdoor spaces should be clear of distractions, obstructions, and unfamiliar objects.
- Giraffes can easily lose their footing, so non-slip materials should be used in all inside flooring.
- Several drinking sources should be provided.
- Giraffes are one of the few mammals that don't swim, so pool or pond depths should be shallow, and slopes or entries should be rough in texture to avoid slipping.
- Indoor spaces should be at least 200 sq. ft. and 20 ft. high. Space needs to be provided for each individual to be able to lie down and rise comfortably. Additional indoor space may be needed if your zoo is located in a colder climate, in order to promote exercise year round.
- A variety of barriers (i.e. fences) can be used for giraffes. For their animals' safety, barriers should be at least 8 ft. high, free of any sharp edges, and strong enough to withstand their weight.

## Masai Giraffe Diet Extension Activity



When planning the diets for the giraffes, remember the following:

- Giraffes are fed three times each day.
- Each giraffe needs a specific total amount of grain available each day, divided between the three feedings. A juvenile giraffe needs 2,400 g of grain and 15 kg of browse daily.
- Each day must contain Prairie Bundle Flower due to it's nutritional value. Each day should provide the giraffe a different browse selection.

	Juvenile Giraffe	Total Grain per week
<b>Morning Feeding</b>		
<b>Afternoon Feeding</b>		
<b>Evening Feeding</b>		
<b>Daily Grain Totals (g)</b>	<b>2,400 g</b>	<b>g</b>

	Day 1	Day 2	Day 3
<b>Browse #1</b>	1/2 Prairie Bundle Flower (5 kg)		
<b>Browse #2</b>	1/2 Willow (5 kg)		
<b>Browse #3</b>	1/2 Redbud (5 kg)		
<b>Total Weight (kg)</b>	<b>15 kg</b>		