Western Lowland Gorilla

Task #1
Animal Research

Climate	• Tropical rainforest climate with temperature range 65-85°F • High humidity • Significant rainfall
What covers their body? How is this helpful?	• Gorillas are covered in fur • Helps regulate body temperature; insulates against both heat and cold depending on the environment • They are warm blooded
Social Dynamic	• Lives in groups called troops (these groups are made up of multiple adult females and their young) • Are led by a dominant "silverback" gorilla • Once forced out of the troop, juvenile and older males form their own group
Appearance	• Short dark-brown/black fur • Hairless face, feet and upper chest • Males: Height: 5.5 ft. / Weight: up to 450 lbs. • Females: Height: 4.5 ft. / Weight: up to 250 lbs. • Gorillas are the largest living primate • Arms are longer than their legs
How do they move? How would that help them in their habitat?	• Walks on all fours • "Knuckle-walking" • Sometimes run just on their legs
How do they care for their young?	• Babies are held by their moms for the first several months and nurse for 2.5-3 years • Socializes with the entire troop • Protected by the silverback
What do they eat? What adaptations do they have to support their diet?	• Primarily herbivores (sometimes eat insects) • Eats leaves, stems and shoots • Prefers fruit when in season • Powerful jaws and teeth
Habitat	• Lowland forests • Abundant plant life

Task #2

Western Lowland Gorilla Needs in a Zoo

After learning about what western lowland gorillas need in the wild, students are prompted to write things that they would need in the zoo. Below are suggested answers, but students are encouraged to be creative.

- Temperature controlled housing
- Misting fans for really hot days
- Bedding material like straw or blankets to build a nest
- Shallow pools or streams
- Trees for climbing
- Enough space to comfortably keep a family and to encourage foraging
- Natural plants that make it feel like the forest
- Ropes, hammocks and other climbing structures
- Shade source

Western Lowland Gorilla Enrichment

Suggested Enrichment:

- **Environmental Enrichment-** Climbing structures, materials for daily nest building, moveable furniture and other items like logs or rocks, changing the layout, natural vegetation, hammocks, artificial vines, large ropes, and firehoses
- **Food Enrichment-** Scattered feeding, hiding food to promote foraging, changing feeding times or number of feeds, puzzle feeders, ice treats, or pureed food
- **Manipulative Enrichment-** Bedsheets, blankets, painted boxes, paper mache, and large objects to make noise with
- **Sensory Enrichment-** colored lights, radios, mirrors both inside and outside of the habitat, bubbles, televisions, different types of music and nature sounds, radios, and fans
- **Social Enrichment-** Social interaction with different groupings of gorillas, training with animal care specialists, and interacting with zoo guests

Things to Avoid:

- Continuous use of the same form of enrichment
- Items that can break into sharpened pieces
- Stackable or moveable items that could be utilized for escape or injury
- Small enrichment or small pieces that could be ingested (string, screws, soft plastics)

Task #3
Western Lowland Gorilla Conservation Status

Conservation Status: Western lowland gorillas are listed as a Critically Endangered Species by the IUCN.

Countries found: Western lowland gorillas are found in central African countries, including Gabon, Congo, Cameroon, Equatorial Guinea, and the Central African Republic.

Has the animal's range changed over time? Yes, it has decreased.

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

Threats facing animal: Poaching, habitat loss, and disease are the major threats contributing to the western lowland gorilla's population decline.

Historical Range

Current Range

Historical / Current Range:
The range of western lowland gorillas has greatly decreased primarily due to poaching, habitat loss, and disease.

Task #4
Western Lowland Gorilla Diet

Gorillas are herbivores, meaning they eat only plants. In the wild, their diet would consist of leaves, different parts of trees, and sometimes even fruit! Gorillas primarily receive a variety of greens each day. They also get fruits and vegetables, including apples, carrots, zucchini, pears, and more! Our primates at the Zoo get a special type of biscuits, which is formulated to supplement their diverse nutritional needs. Students will use these elements to complete their own dietary plan for their zoo's gorillas.

Extension Activity

Students can use the extension on page 48 to create a diet plan for an entire week, and answer some questions about total amounts needed.

Task #5
Habitat Design

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

Natural Behaviors: Nesting, exploring, climbing, foraging, socializing with other gorillas, hiding

- Gorillas are the largest of the great apes and come with many complex physical, social, and intellectual needs. The minimum space requirements for gorillas is an area of 25 sq. ft., and at least 84 in. tall.
- Other aspects of habitat design can vary depending on the composition of the troop (Number of gorillas, age, sex), designs should have enough space to allow gorillas to be out of sight from one another if desired.
- Gorillas regularly construct nests throughout the day. Materials should be provided for each individual gorilla. This could include hay, straw, mulch, cut natural vegetation, or artificial materials such as paper, burlap, or cardboard.
- Vegetation, like trees, grasses, or shrubs, provides gorillas with shade and protective cover, foraging items, browse, food, nesting materials.
- While gorillas tend to avoid water, it is still recommended to provide water in their space for environmental enrichment. Pools, streams, or waterfalls are all good options as long as the water is shallow. Pools might need to be drained in the presence of newborn gorillas.
- Indoor spaces should be provided for each individual gorilla and have enough space for a family group.
- Raised sleeping surfaces are recommended for natural sleeping behaviors.

Western Lowland Gorilla Diet Extension Activity

Now that you've created the gorilla's diet for three days, you can plan the diet for the remainder of the week. Use the charts in the student guide to find the correct amounts for greens, vegetables, starchy vegetables, and fruit each day. Remember, animals love variety! When planning the diet for each gorilla, remember the following:

- Greens must weigh between 2,500 g - 4,000 g
- Vegetables must weigh between 700 g - 900 g
- Starchy vegetables must weigh between 125 g - 175 g
- Fruits must weigh between 200 g - 400 g

Diet	Day 5	Day 6	Day 7
Greens (Between 2,500 g - 4,000 g daily)	**Total:**	**Total:**	**Total:**
Vegetables (Between 700 g - 900 g daily)	**Total:**	**Total:**	**Total:**
Starchy Vegetables (Between 125 g - 175 g daily)	**Total:**	**Total:**	**Total:**
Fruit (Between 200 g - 400 g daily)	**Total:**	**Total:**	**Total:**

How many (greens, vegetables, starchy vegetables, or fruit) did the gorilla eat in a week?

How many total grams (g) did the gorilla eat on Day (1 and/or 2)?