VENN DIAGRAM & DISCUSSION

IVAN’S DOMAINS

activity to accompany “The One and Only Ivan”

VENN DIAGRAM- IVAN’S DOMAINS

Concept:
Students will improve their comparing & contrasting critical thinking skills during this activity, applying their knowledge of text and concepts read in ‘The One and Only Ivan’ and learn to organize their thoughts in a Venn Diagram.

Objectives:
- Students will compare & contrast Ivan’s domains from that of his time at the ‘Big Top Mall’ and of his time at the Zoo.
- Students will learn how to effectively use a Venn Diagram to organize information
- Students will engage in a respectful, meaningful classroom discussion

Common Core Standards


**5th Grade:** CCSS.ELA-LITERACY.RL.5.1, CCSS.ELA-LITERACY.RL.5.2, CCSS.ELA-LITERACY.RL.5.3, CCSS.ELA-LITERACY.RL.5.4, CCSS.ELA-LITERACY.RL.5.5, CCSS.ELA-LITERACY.RL.5.6, CCSS.ELA-LITERACY.RL.5.9, CCSS.ELA-LITERACY.RF.5.3, CCSS.ELA-LITERACY.RF.5.4, CCSS.ELA-LITERACY.RI.5.1, CCSS.ELA-LITERACY.RI.5.2, CCSS.ELA-LITERACY.RI.5.3, CCSS.ELA-LITERACY.RI.5.4, CCSS.ELA-LITERACY.RI.5.5, CCSS.ELA-LITERACY.RI.5.6, CCSS.ELA-LITERACY.RI.5.9, CCSS.ELA-LITERACY.RI.5.10, CCSS.ELA-LITERACY.RI.5.11, CCSS.ELA-LITERACY.SL.5.1, CCSS.ELA-LITERACY.SL.5.2, CCSS.ELA-LITERACY.SL.5.3, CCSS.ELA-LITERACY.SL.5.4, CCSS.ELA-LITERACY.SL.5.5, CCSS.ELA-LITERACY.SL.5.6, CCSS.ELA-LITERACY.L.5.1, CCSS.ELA-LITERACY.L.5.2, CCSS.ELA-LITERACY.L.5.3, CCSS.ELA-LITERACY.L.5.4

PROCEDURES

Prep: Print off copies of the included Venn Diagram or ask students to draw their own on scratch paper using the directions below.

“A good zoo,” Stella says, “is a large domain. A wild cage. A safe place to be. It has room to roam and humans who don’t hurt.” She pauses, considering her words. “A good zoo is how humans make amends.”

☐ (3 minutes) Lead students through the following steps to help them create a Venn Diagram on scratch paper or hand out copies of the attached Venn Diagram template.

- If not using the template, ask students to draw two large overlapping circles on their scratch paper-modeling this on the white board.
- Establish a diagram "universe." A universe is in the context of Venn diagrams means what you’re dealing with at the moment, not the whole universe. For this activity, our universe is "Ivan’s Domains." Write that at the top of the page.

- Add classifications to your circles. "Classifications" just means how you are organizing things. For this activity, we will be using the classifications “Big Top Mall” and “Zoo.” Write one classification in each of the main circles.

☐ (10-15 minutes) Lead students through a classroom discussion describing Ivan’s domains based upon recollection from the book. Place each description or detail recounted into the appropriate circle.

  - Establish what overlaps. You may notice that certain items are in both lists. This overlap is called a "union" in mathematical terms and is sometimes represented by this symbol: "U." Place these descriptors in the overlapping space between the circles.

☐ (5 minutes) The One and Only Ivan does not go into a lot of detail regarding Ivan’s new domain at Zoo Atlanta. Read the attached information about modern zoos to students or have students read in teams/groups/independently to add additional information to their Venn Diagrams. Look at photos of Zoo Atlanta’s Gorilla exhibit for additional inspiration/insight.

☐ (5-10 minutes) Classroom discussion:
  - Looking at the diagram that you have created, what are the main differences between Ivan’s domain at the Big Top & his domain at the zoo?
  - Which domain do you prefer for animals? Why?
THE MODERN ZOO: FOOD FOR THOUGHT

Though many people view a day at the zoo as an opportunity to relax and enjoy looking at animals, modern zoos are more than places of recreation and entertainment. Zoos and aquariums accredited by the Association of Zoos & Aquariums (AZA) focus on conservation, education and scientific study. Today, these institutions play a vital role in public education, breeding and reintroduction, field projects and research.

Modern zoos and aquariums strive to:

- Study and provide exemplary care to animals in their collection
- Study and conserve animals in the wild
- Inspire and train the next generation of scientists in the field

"...in light of this evolution from places to entertain, to scientific institutions dedicated to education, conservation, and research, particularly critical areas of research that focuses on genetic diversity, zoos are now necessary. They are necessary not only for the future survival of the animal species, but to provide a connection, a human-animal bond with all animal species." -Thorton W. Blease of Common Sense For Animals

"I think we have a real obligation when we do have animals in captivity to understand their needs and to care for them as well as we can. Stella the elephant in Ivan says, 'You know humans surprise you sometimes,' and I hope that the next generation can surprise us all." - Katherine Applegate, Author of The One and Only Ivan
Gorilla SSP (Species Survival Plan) information
http://www.gorillassp.org/

Expert design of artificial environments for captive gorillas is a difficult process but one that is tremendously important to advance the care of the species. As we learn more about the optimal housing of apes, exhibit designs evolve, and hopefully improve over time.

There is no golden rule regarding the appropriate space requirements for captive gorilla enclosures. Multiple factors affecting the quality of the space likely have significant influences on how gorillas perceive the quantity of space. Gorillas should be housed in large, complex, environmentally enriched enclosures. Outdoor access should be provided to all gorillas whether on exhibit or off exhibit. As newer exhibits are being planned, considerations for multiple habitats or exhibit clusters are recommended. Exhibits with multiple habitats, fully integrated with holding buildings that interconnect each habitat, as well as night quarters, shifts, squeezes, and dayrooms, are necessary to fulfill the concept of a "life-care complex" for an ever-expanding population of gorillas within a singly managed facility.

Visual barriers, access to privacy, climbing apparatus, vegetation, nesting material, and manipulable objects are important in reducing stress, social conflict, and boredom. The size of these multiple habitats may vary depending on available space in the facility.

The space needs to be sufficient to allow for the number, age and sex ratio of the animals assigned to the area with emphasis on the social dynamics of these individual troop members. Keeper staffing levels, and the flexibility of the space to allow for multiple shift doors, feeding chutes, sleeping platforms, etc...also need to be taken into account when deciding if space needs are adequate and suitable to meet the needs of the diversity of the animals in these specific habitats.

The use of live and dead plant materials is generally considered to be the most useful furniture in outdoor enclosures. Vegetation provides shade/cover, display and foraging items, browse/food elements and nesting materials, and allows for visual cover from other animals, thus promoting species-appropriate behavior conducive to the apes' well-being. Various rock outcrops, artificial or natural topographic features, and deadfall trees can be arranged in a manner to encourage natural movements and locomotion patterns within the exhibit and to simulate the daily foraging behaviors of wild gorillas. The placement of exhibit furniture, and the planting of islands and climbers, teamed with barrier and view conditions, can create a dynamic outdoor environment for both apes and visitors.
Although it has been noted that gorillas are primarily terrestrial primates, given the opportunity, they will climb and use trees. Artificial climbers provide for some of the range of locomotion and behaviors displayed in natural trees. Wide, comfortable crotches for perching and well-placed branches for climbing can be designed into the form of artificial trees. However, some of the more subtle qualities, including flexibility, shade, manipulation, destructibility, and food source, may not be provided by artificial trees. Combinations of climbing structures, artificial and dead trees, vines, ropes, and wooden constructions may promote a wider array of behavioral options for expanding vertical and horizontal dimensions to habitats. Gorillas make and use nests on a daily basis in the wild; therefore, this opportunity is an important aspect to provide in a captive environment.

**Enrichment:**

Environmental enrichment is a husbandry principle that seeks to enhance animal care by providing stimuli that encourage natural behavior and promote psychological well-being. Through the use of environmental enrichment, the concepts of variability, choice, and environmental control are maximized within great ape facilities. Environmental enrichment for gorillas covers a wide variety of topics, which can be broken down into two broad categories: social (relationships with other gorillas, relationships with caretakers) and physical (living space, diet, browse, substrate, and manipulable, nonfood objects). Examples of social enrichment include housing with other gorillas and providing opportunities for interaction with keepers. Examples of physical enrichment include novel presentation of food items, variation in living spaces, and provision of objects for play or interaction. Environmental enrichment is truly effective when it increases the choices available for individuals and includes diversity and change. The amount of control that an individual animal is able to exercise over its environment, both social and physical, is directly proportional to the number of behavioral choices that it can utilize within its environment. Individuals that possess a sense of control based on positive, species-typical activities are more behaviorally competent than those that do not. In a social setting, enrichment is a powerful force to give each member of a group the maximum amount of choice, and therefore control, possible. Appropriate enrichment techniques can serve as the social catalyst that promotes positive and constructive interactions among individuals.

Gorillas are primarily herbivores, though they have been reported to consume some insects in the wild. Their primarily herbivorous diet may be essential for health. Elevated cholesterol concentrations may lead to premature cardiovascular disease, which is reported to be the leading cause of mortality in captive adult gorillas. Mimicking the nutritional composition of the high fiber, low sugar diet of free-ranging gorillas will promote healthier gorillas. Feeding gorillas animal products, including dairy and eggs, is not recommended as they may promote obesity and increase cholesterol concentrations. The only exception to this would be when hand-raising gorilla infants. At those times human infant formulas supplemented with omega fatty acids are recommend for use over cow’s milk.

Successful diets fed to captive gorillas may consist of the following components: 7% fruits, 57% leafy green vegetables, 4% root vegetables, 17% other vegetables and 15% high-fiber primate biscuits. The fruit portion of the diet may be reserved for training. Since fruits and primate biscuits are the most calorie dense items, feeding them to animals individually will help control caloric intake, especially for overweight individuals. Some zoos with obese animals may consider completely eliminating fruit from the diet of gorillas. Browse material is not readily available year-round at northern-climate zoos, so the amount of vegetable material used for forage may be provided at comparatively higher levels than zoos in more temperate climates. Although current diets may contain fruit and vegetable produce equaling about 50% of total food offered, it is suggested that the proportion of fruit in diets be reduced, and vegetable produce increased. Vegetables appear to contain a more suitable nutrient composition than fruits for lowland gorillas, and also provide an economic alternative to fruit.
Venn Diagram Template