Wild Habitats

Grade 5 Name: _____

Read the passage comparing two habitats. Then answer the questions using evidence from the text.

Compare plant life, animal life, climate, rainfall, and temperature in each habitat. Use text evidence to support every answer.

Arctic Tundra vs Tropical Savanna: Extremes of Cold and Warmth

The Arctic tundra and the tropical savanna represent two vastly different extremes of Earth's climate. The tundra, found near the North Pole, is defined by its permafrost – permanently frozen ground – and average winter temperatures plunging to -34°C. Summers are short and cool, rarely exceeding 10°C. **In contrast**, the tropical savanna, common in Africa and Australia, experiences warm temperatures year-round, averaging 20-30°C, but with distinct wet and dry seasons.

Rainfall patterns are also starkly different. The Arctic tundra receives very little precipitation, often less than 250 mm per year, mostly as snow, making it a 'cold desert.' Its vegetation consists of low-growing plants like mosses, lichens, and dwarf willows, unable to grow tall due to permafrost and strong winds. **While** the savanna receives more rainfall, typically 500-1500 mm annually, it falls mainly during a few months, leading to vast grasslands dotted with drought-resistant trees such as acacia and baobab.

Life in **both** habitats requires incredible adaptations. Arctic animals like caribou and arctic foxes have thick fur and layers of fat to insulate against the cold. Many migrate or hibernate. Savanna animals, including zebras, giraffes, and lions, often travel long distances to find water and fresh grazing during the dry season. Their adaptations include specialized diets and social structures to survive.

Biodiversity levels vary significantly. The Arctic tundra has lower species diversity overall, but some species, like the migrating caribou herds, can number in the hundreds of thousands. The tropical savanna, **however**, boasts an extraordinary diversity of large mammals, often considered one of the richest wildlife spectacles on Earth, alongside a wide array of birds and insects.

Both ecosystems are profoundly affected by climate change, though in different ways. The Arctic tundra is warming at twice the global average, causing permafrost to melt, releasing greenhouse gases, and threatening ice-dependent species like polar bears. The savanna faces increased frequency and intensity of droughts and wildfires due to altered rainfall patterns, impacting water availability and vegetation growth.

Despite their apparent differences, **both** the Arctic tundra and tropical savanna are vital for global ecological balance and demonstrate life's remarkable ability to thrive under extreme conditions. They both support complex food webs and are crucial carbon sinks, highlighting their surprising similarity as key indicators of planetary health.

COMPREHENSION QUESTIONS

(1) Which habitat is characterized by permanently frozen ground, or permafrost?

(A) Arctic Tundra (B) Tropical Savanna (C) Both (D) Neither

(2) Which habitat experiences distinct wet and dry seasons?

(A) Arctic Tundra (B) Tropical Savanna (C) Both (D) Neither

(3) "The Arctic tundra has low-growing plants, while the savanna has tall grasses and scattered trees." Is this a SIMILARITY or DIFFERENCE?

(A) Similarity (B) Difference

(4)

"Both ecosystems are significantly impacted by climate change." Is this a SIMILARITY or DIFFERENCE?

(A) Similarity (B) Difference

(5) Use evidence from the passage to explain ONE way these habitats are alike.

(6) Which habitat do you think faces a bigger threat from climate change? Use TWO details from the passage.