Ecosystems

Name: _____ Date: _____ Grade: Grade 5

Part A: Multiple Choice

Circle the best answer for each question.

1. A desert ecosystem and a tropical forest ecosystem both have producers, consumers, and decomposers. What is the main reason the desert has fewer organisms?

- A) Deserts have no sunlight for producers to use for photosynthesis.
- B) Deserts receive very little rainfall, which limits how many organisms can survive.
- C) Deserts have no soil, so decomposers cannot return nutrients to the ground.
- D) Deserts are too close to the equator for most organisms to live there.

2. In an ocean ecosystem, tiny organisms called phytoplankton produce most of the oxygen. What would happen if phytoplankton populations crashed?

- A) Ocean consumers would simply switch to eating seaweed instead.
- B) Oxygen levels in the atmosphere would drop and ocean food webs would collapse.
- C) Only deep-sea organisms would be affected because phytoplankton live on the surface.
- D) Land ecosystems would not be affected because they have their own producers.

3. A grassland ecosystem has grass, mice, snakes, and hawks. Which statement best explains why there are more mice than hawks?

- A) Mice reproduce faster than hawks, so their numbers are always higher.
- B) Energy decreases at each level of the food chain, so fewer top predators can be supported.
- C) Hawks eat less food than mice, so they do not need a large population.
- D) Mice are smaller and need less space, so more of them fit in the ecosystem.

4. Two ponds are next to each other. Pond A has many different species of fish, insects, and plants. Pond B has only three species. Which pond would recover better after a drought and why?

- A) Pond B, because fewer species means less competition for the remaining water.
- B) Pond A, because greater biodiversity means more species can fill different roles during recovery.
- C) Both ponds would recover equally because droughts affect all ecosystems the same way.
- D) Pond B, because the three species would have evolved to survive droughts better.

Part B: Fill in the Blank

Write the correct answer on each line.

1. A _____ is a large area with a specific climate and set of organisms, like a desert or forest.

Part A: Multiple Choice

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4. Two ponds are next to each other. Pond A has many different species of fish, insects, and plants. Pond B has only three species. Which pond would recover better after a drought and why?

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- ○ D) Pond B, because the three species would have evolved to survive droughts better.

Part B: Fill in the Blank

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1. A **biome** is a large area with a specific climate and set of organisms, like a desert or forest.

2. Biodiversity means having many different **species** of organisms in an ecosystem.