

# Advanced Ecosystem Science

Ecology · Answer Key · 8 Questions

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**1. In a typical energy pyramid, what percentage of energy is generally passed from one trophic level to the next highest level?**

- A) About 1%
- B) About 10%**
- C) About 50%
- D) About 90%

**2. Which process allows nutrients like nitrogen and phosphorus to be returned to the soil from dead organic matter?**

- A) Photosynthesis
- B) Transpiration
- C) Decomposition**
- D) Respiration

**3. What term describes a symbiotic relationship where one organism benefits while the other is neither helped nor harmed?**

- A) Mutualism
- B) Parasitism
- C) Commensalism**
- D) Competition

**4. Which specific layer of soil in the Tundra biome remains frozen year-round and prevents deep-rooted plants from growing?**

- A) Topsoil
- B) Bedrock
- C) Permafrost**
- D) Subsoil

**5. What is the name for a species that has an unusually large effect on its ecosystem, such that its removal could cause the ecosystem to collapse?**

- A) Keystone species**
- B) Invasive species
- C) Indicator species
- D) Apex predator

**6. Which group of organisms is responsible for producing approximately half of the world's oxygen through photosynthesis in the oceans?**

- A) Coral reefs
- B) Seaweed
- C) Phytoplankton**
- D) Mangroves

**7. Ecological succession that begins in an area where no soil exists, such as on a new volcanic island, is known as what?**

- A) Secondary succession
- B) Primary succession**
- C) Climax community
- D) Pioneer transition

**8. Some animals enter a state of dormancy similar to hibernation to survive extremely hot and dry periods. What is this called?**

- A) Migration
- B) Brumation
- C) Estivation**
- D) Insulation