

ECOSYSTEMS AND FOOD CHAINS

Key Concepts

- An ecosystem is a community of living organisms and their environment working together
- Food chains show how energy is passed from one organism to another
- Producers make their own food using sunlight energy, while consumers eat plants or other animals



Key Facts to Remember

- Energy flows through an ecosystem starting with the sun
- Producers like plants and algae make their own food through photosynthesis
- Primary consumers eat plants, secondary consumers eat other animals, and tertiary consumers are top predators
- Decomposers like fungi and bacteria break down dead material and return nutrients to the soil
- A balanced ecosystem depends on all organisms playing their role
- Biodiversity increases the stability of an ecosystem and its ability to recover from disturbances
- Energy decreases as it moves up the food chain due to loss as heat at each level
- Habitats provide the resources organisms need such as food, water, and shelter
- Human activities like deforestation and pollution can disrupt ecosystems
- Symbiotic relationships, such as mutualism, commensalism, and parasitism, are key interactions between species

Quick Questions

1. What is the main source of energy in most ecosystems
2. What is the role of decomposers in an ecosystem
3. Why is biodiversity important for ecosystems
4. What happens to energy as it moves up the food chain
5. Name two human activities that can disrupt ecosystems
6. What are the three types of symbiotic relationships
7. Give an example of a producer in a food chain
8. Why are top predators important for maintaining balance in ecosystems
9. What resources do habitats provide for organisms
10. How do deforestation and pollution affect ecosystems

Fun Fact

The Amazon rainforest produces 20 percent of the world's oxygen and is home to millions of species of plants and animals
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