

Nova's Nocturnal Nature Quiz: Food Chains and Webs

Learning objective: To identify and explain the roles of producers, predators, and prey within a food chain, and to understand how energy is transferred in an ecosystem.

Join Nova the owl on an adventure through the woodland! Answer the following questions to test your knowledge of how energy flows through nature. Write your answers clearly.

Answer Key: 1. A (Producer); 2. True; 3. Herbivore; 4. C (Secondary consumer); 5. False (They are consumers); 6. Predator; 7. Sunlight; 8. B (The population of the prey might increase); 9. True; 10. Omnivore.

Word bank: Producer · Consumer · Herbivore · Carnivore · Predator · Prey · Ecosystem · Energy

1. 1. In a forest food chain, what do we call an organism like a green plant that makes its own food? A) Producer* B) Consumer C) Predator D) Decomposer (1 mark)

2. 2. True or False: All food chains must start with a source of energy, usually the sun. (1 mark)

3. 3. What term describes an animal that only eats plants? (1 mark)

4. 4. If a ladybird eats an aphid, which has eaten a leaf, what is the ladybird? A) Producer B) Primary consumer C) Secondary consumer* D) Apex predator (1 mark)

5. 5. True or False: Predators are animals that are hunted by other animals for food. (1 mark)

6. 6. An animal that hunts and kills other animals for food is known as a _____. (1 mark)

7. 7. What is the original source of energy for almost all food chains on Earth? (1 mark)

8. 8. What might happen if a primary consumer is removed from a food chain? A) The plants would grow less B) The population of the prey might increase C) The food chain would become more stable D) The producers would decrease* (1 mark)

9. 9. True or False: A food web is a collection of interconnected food chains within an ecosystem. (1 mark)

10. 10. What is an animal called if it eats both plants and other animals? (1 mark)

Draw: Draw a woodland food chain containing at least four stages. Label the producer, the primary consumer, and the predator. Use arrows to show the direction of energy flow.



Extension challenge: 1. Explain why a food web is a more accurate representation of an ecosystem than a single food chain. 2. Justify why producers are essential for the survival of every other organism in a habitat. 3. Compare and contrast the diet of a herbivore and an omnivore. 4. What might happen to the ecosystem if a new, invasive predator was introduced? 5. If a drought occurred, how would this impact the entire food chain? 6. Design your own hypothetical food chain for an ocean environment and explain the role of each creature.