

## Year 5 Science Assessment: Habitats and Food Chains

*Learning objective: To understand the roles of producers, consumers, and predators within a food chain.*

Read each question carefully. Ensure your answers are clear and use scientific vocabulary where appropriate. You have 30 minutes to complete this paper.

Nova the owl is observing a woodland ecosystem. She watches a sun-drenched oak tree where green leaves grow. A small caterpillar nibbles on the leaves. Soon, a hungry robin swoops down to eat the caterpillar. Later, a larger hawk circles above, looking for its next meal. Max the monkey is watching too, noting that every creature depends on the energy starting from the sun.

*Word bank: Producer · Consumer · Herbivore · Carnivore · Omnivore · Predator · Prey · Energy*

**1. Identify the 'producer' in the woodland passage. Explain why it is called a producer. (2 marks) (2 marks)**

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**2. Using the creatures mentioned in the passage, write a food chain using arrows to show the flow of energy. (2 marks) (2 marks)**

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**3. Define the term 'herbivore' and identify one animal from the passage that fits this description. (3 marks) (3 marks)**

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**4. If all the robins in this woodland were to move away, what do you predict would happen to the caterpillar population? Give a reason for your answer. (4 marks) (4 marks)**

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**5. Explain the difference between a predator and prey. Provide one example of each from a common garden ecosystem. (4 marks) (4 marks)**

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6. Imagine you are Bea the honeybee. Write a short report (5 sentences) describing your role in the food chain and why plants are essential for the survival of animals like you. (5 marks) (5 marks)

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**Draw:** Draw a food chain that includes a blade of grass, a grasshopper, a frog, and a snake. Ensure you draw arrows in the correct direction to show the transfer of energy.



*Extension challenge: Total: /25. Challenge: Research what happens to a food chain if a primary consumer is removed entirely. Write a one-paragraph explanation of your findings.*