

Bea's Brilliant Food Chain Investigation

Learning objective: To identify and construct food chains, identifying producers, primary consumers, and secondary or tertiary consumers.

Help Bea the honeybee map out the flow of energy in an ecosystem! Use your knowledge of habitats to select a producer and the animals that rely on it. Use the word bank to help you label each stage of the chain correctly.

Word bank: Producer · Primary Consumer · Secondary Consumer · Tertiary Consumer · Energy · Herbivore · Carnivore · Omnivore · Photosynthesis

1. The Producer: Identify a plant that starts your food chain. Explain why this organism is essential for the rest of the chain to exist. (2 marks)

2. The Consumers: List the animals in your chain. Label each one as a herbivore, carnivore, or omnivore. Justify your classification based on their diet. (3 marks)

3. Energy Flow: Describe the direction in which the arrows point in a food chain and explain what those arrows represent. (2 marks)

4. Compare and Contrast: How does the diet of a primary consumer differ from that of a tertiary consumer in your chosen habitat? (3 marks)

5. What might happen if the producer in your food chain was suddenly removed from the habitat? Explain the impact on the rest of the chain. (4 marks)

6. Higher-Order Thinking: Justify why food chains are rarely longer than four or five links. What happens to the energy as it moves up the chain? (4 marks)

Extension challenge: Imagine a new predator arrives in your chosen habitat. Write a short paragraph explaining how this might disrupt the existing food chain and suggest one way the ecosystem might adapt to this change.