

Nature's Energy Web: A Journey with Bea

Learning objective: To identify and describe the roles of producers, predators, and prey within a food chain.

Read the text carefully and answer the questions below. Use full sentences for your answers.

Bea the honeybee spends her days buzzing through the meadow, observing how energy flows through the ecosystem. Every food chain starts with the sun, the original source of energy. Plants, such as wildflowers and grass, act as producers because they use sunlight to create their own food. Bea watches as a hungry caterpillar nibbles on a leaf, making it a primary consumer. The caterpillar is then spotted by a quick-thinking blue tit, which is a predator. This shows how energy is transferred from the plant, to the herbivore, and finally to the carnivore.

Food chains are rarely simple lines. In a healthy habitat, many chains overlap to form a complex food web. If one part of the chain is removed, such as the flowers disappearing, the rest of the chain struggles to find the energy needed to survive. Bea knows that every creature, from the smallest beetle to the largest mammal, plays a vital role in keeping our natural world balanced and thriving. By protecting the producers, we ensure that the rest of the food chain remains strong and healthy for future generations.

Word bank: producer · consumer · predator · prey · ecosystem · herbivore · carnivore · energy

1. According to the text, what is the original source of energy for every food chain? (1 mark)

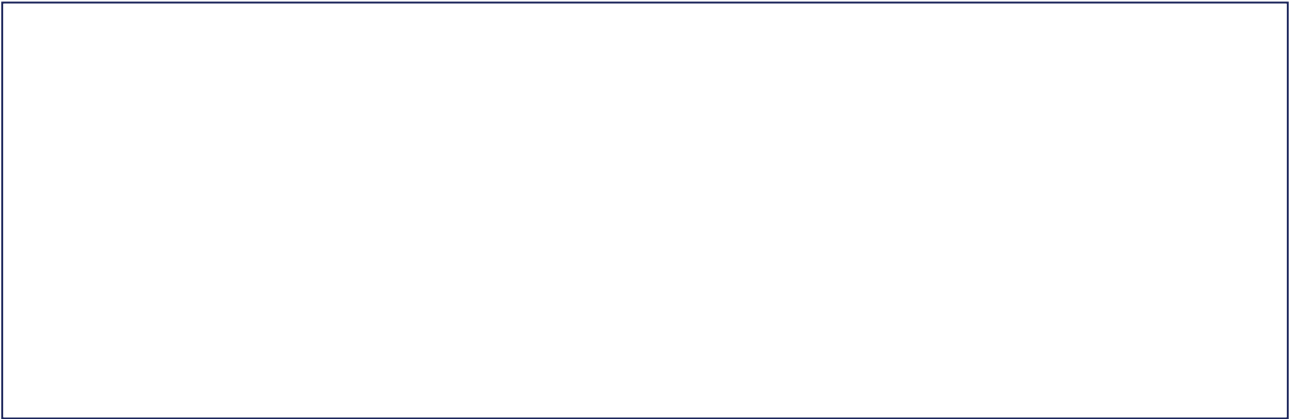
2. Name the three creatures mentioned in the text that form a single food chain. (2 marks)

3. Why does the author suggest that food chains are rarely just simple, straight lines? (2 marks)

4. What might happen to the blue tit if all the caterpillars in the meadow were to disappear? (2 marks)

5. Bea the honeybee says that every creature plays a vital role. Do you agree with this statement? Explain your reasoning. (3 marks)

Draw: Draw a food chain that includes the sun, a plant, a herbivore, and a predator. Use arrows to show the direction in which the energy is travelling.



Extension challenge: Research a different habitat, such as a pond or a woodland. Create your own food web diagram showing at least five different animals and plants interacting.