

Nova's Woodland Food Chain Challenge

Learning objective: To identify and classify producers, consumers, and predators within a woodland food chain, and understand the flow of energy.

Nova the Owl has been observing the woodland ecosystem. Use the organisms provided in the word bank to sequence three distinct food chains. Place the organisms in the correct order, starting with the producer. Remember: the arrows should point in the direction of energy transfer (towards the animal doing the eating).

Word bank: Oak tree · Caterpillar · Blue tit · Sparrowhawk · Grass · Rabbit · Fox · Fallen leaves · Woodlouse · Frog

1. Sequence the first food chain: Oak tree, Sparrowhawk, Caterpillar, Blue tit. Explain why the Oak tree is called the 'producer'. (2 marks)

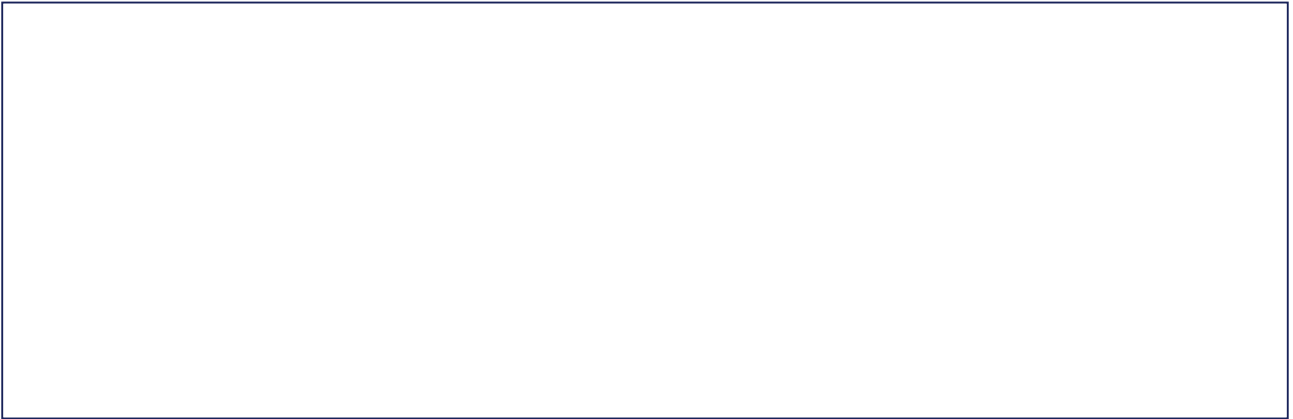
2. Sequence the second food chain: Grass, Fox, Rabbit. If all the rabbits were removed from this habitat, what would happen to the population of the grass and the foxes? (2 marks)

3. Sequence the third food chain: Fallen leaves, Woodlouse, Frog. What is the role of the frog in this chain? Is it a primary, secondary, or tertiary consumer? (2 marks)

4. In every food chain, what is the original source of energy that the producers use to grow? (1 mark)

5. Why do the arrows in a food chain point away from the producer and towards the consumer? (2 marks)

Draw: Draw a forest food web that connects all ten organisms from the word bank. Ensure your arrows are clearly drawn to show the energy flow between them.



Extension challenge: Research what happens to a food chain if a 'top predator' (like a fox or hawk) is removed. Write a short paragraph explaining the term 'apex predator' and its importance in maintaining a balanced ecosystem.