

Nova's Guide to the Circle of Life: Food Chains

Follow the Energy Flow: Discover how every creature plays a part in the web of life!

- A producer is an organism, such as a green plant, that creates its own energy using sunlight. Why are producers considered the essential foundation of every food chain?
- Primary consumers are herbivores that eat producers, while secondary consumers are carnivores or omnivores that eat other animals. How does the energy available to an animal change as it moves along the food chain?
- An apex predator sits at the very top of a food chain and has no natural predators of its own. What might be the environmental consequence if an apex predator were removed from an ecosystem?
- Food chains are often interconnected to form complex food webs. Why is a diverse food web more resilient to environmental changes than a single, simple food chain?
- Energy transfer is rarely 100% efficient, as much of it is lost as heat or used by the organism for movement and growth. Explain why food chains rarely contain more than four or five links.

Did you know? Did you know? Nearly all food chains begin with energy from the Sun! Plants act as nature's solar panels, capturing sunlight through photosynthesis to create the fuel that powers every other living thing on our planet.

Key vocabulary: Producer · Consumer · Herbivore · Carnivore · Omnivore · Apex Predator · Ecosystem · Photosynthesis