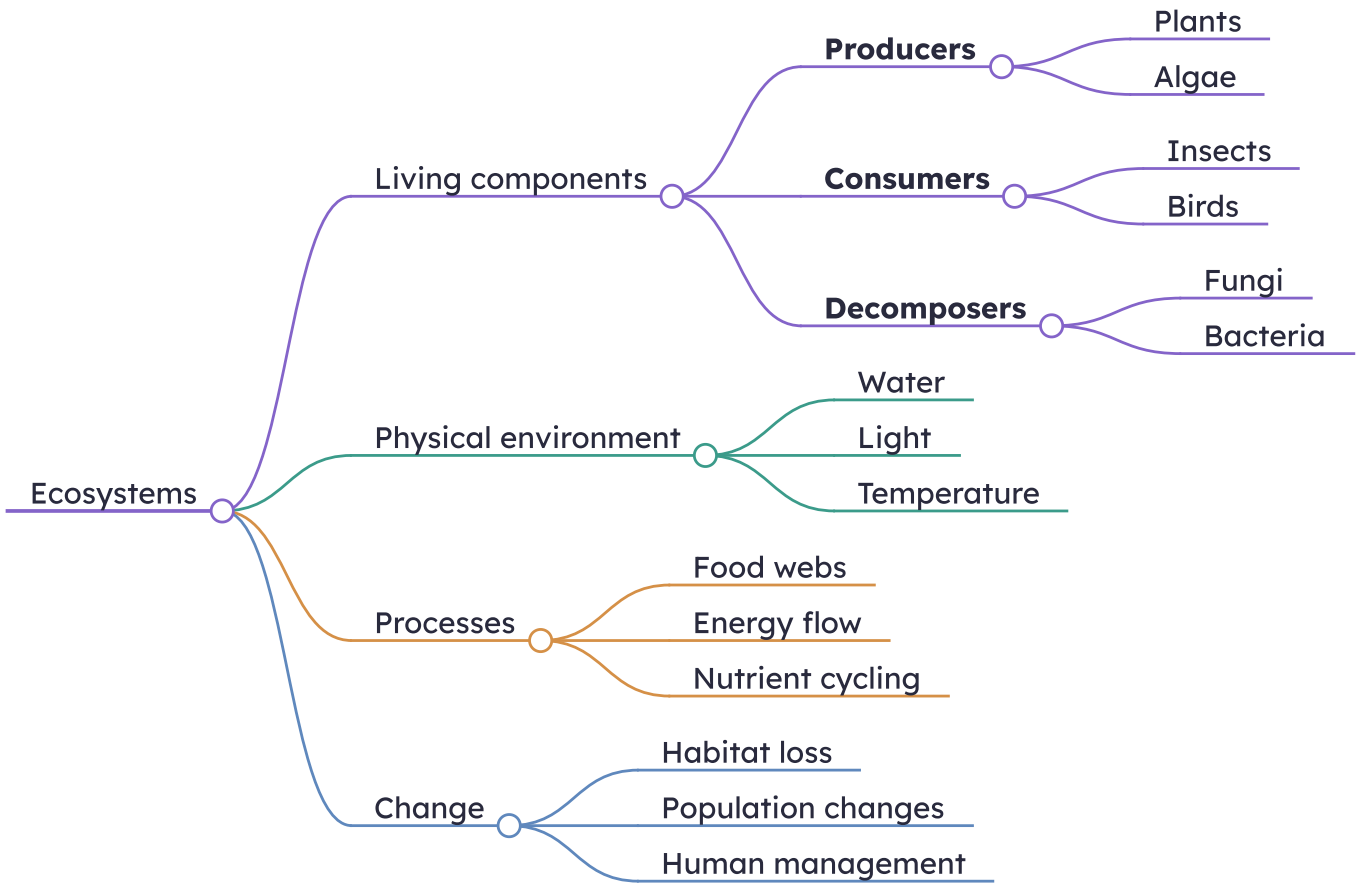
Ecosystems

Connect organisms, their environment, energy flow, and the recycling of matter.



Read one branch at a time. Then cover the details and explain them in your own words.

Understand the topic

An ecosystem includes living organisms and their physical environment. Producers capture energy, consumers obtain energy by feeding, and decomposers break down organic material. Feeding relationships form networks. Water, light, temperature, and soil conditions influence which organisms can live in a place.

How the map is organized

Group components separately from processes. Then use the change branch to reason about consequences rather than memorize a list.

> **Watch out for this**
> Matter cycles, while energy flows and is eventually dispersed as heat. These are different patterns.

Try it yourself

Choose a pond or school garden. Describe two possible effects of reduced rainfall, stating which organisms and processes are involved.

Two questions to answer

Which is a nonliving component?

Water influences organisms but is not itself an organism.

Why use a food web?

A web shows connected feeding relationships that one chain leaves out.

Sources

openstax.org
https://openstax.org/books/biology-2e/pages/46-2-energy-flow-through-ecosystems

Original practice material compiled by Studera.ai. Explore at studera.ai/en/resources/mind-map-examples.