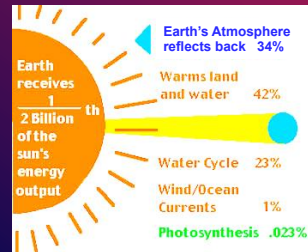


Chapter 13 Principles of Ecology

13.3 Energy in Ecosystems

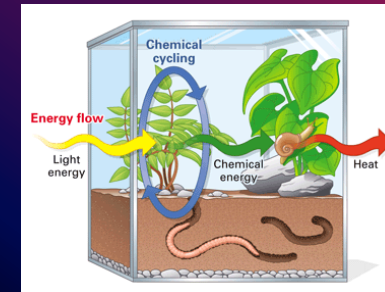
I. The flow of energy through an ecosystem is one of the most important factors that determines the system's ability to support life.

A. The sun is the main source of energy for most ecosystems.



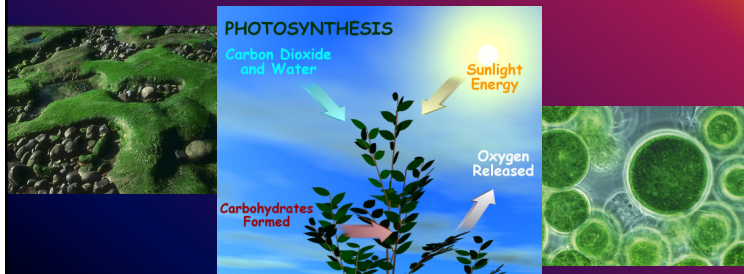
B. There is a one-way energy flow through ecosystems from the sun light to producers then to consumers.

C. Most energy is then lost as heat.

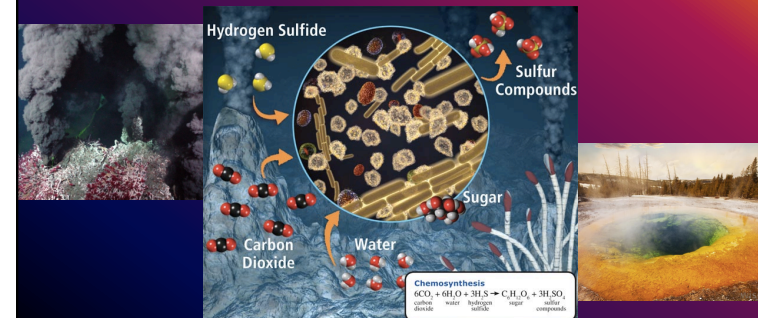


II. Producers provide energy for other organisms

A. Autotrophs (producers) use energy from the environment to make their food.



B. Chemosynthesis is the process by which organisms make food using chemicals.

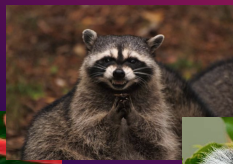




- C. **Heterotrophs (consumers)** are organisms that acquire energy from other organisms.
1. **Herbivores** – eat plants
 2. **Carnivores** – eat animals
 3. **Omnivores** – eat both plants and animals



4. **Detritivores** – eat remains and dead matter (detritus)
5. **Decomposers** – break down organic matter
6. **Generalist** – have a varying diet
7. **Specialist** – eats one specific organism



Think (3 min)

Pair (3 min)

Share

1. What are the two types of producers?
2. How does the stability of an ecosystem depend on its producers?
3. What kind of consumer(s) eat a wide variety of organisms?
4. What kinds of consumers(s) eat only a few kinds of organisms?

