

Presentation Notes

Presentation Ecology Lesson 4.4

Notes from Presentation:

What is Ecology?

The study of the interactions of organisms with one another and their environment

- Interconnectedness
- Plants and animals need each other
- Organisms need oxygen, water, nutrients, shelter, et. Cetera

Biomes

Large region with similar plants, animals, and other organisms adapted to the climate and other conditions.

- Consist of many similar ecosystems
- Examples
 - o Aquatic
 - o Desert
 - o Grassland
 - o Taiga
 - o Temperate Forest
 - o Tropical Rainforest
 - o Tundra

Ecosystems

The interactions between the living things and the nonliving things in a place.

- Plants, animals, and other organisms rely on each other and on the physical environment

Abiotic Ecosystem Components

- Nonliving Factors
- Physical and chemical characteristics
- Examples
 - o Air
 - o Water
 - o Land
 - o Soil nutrients
 - o Temperature
 - o Sunlight
 - o Precipitation

Biotic Ecosystem Components

- Living organisms
- Include:
 - o Flora (plants)
 - o Fauna (animals)
 - o Microorganisms

Interactions of Organisms

Food chain – Single path of feeding relationships

Food web – series of interrelated food chains

Producers and Consumers

Producer- manufacture their own food, such as plants

Consumer – obtain energy by eating other organisms

- Herbivores – eat plants
- Carnivores – eat animals
- Omnivores – eat plants and animals

What is Energy?

The ability to do work or cause changes to occur.

- Organisms need energy for life-sustaining processes

Trophic Levels

An organism's position in the sequence of energy transfers

- Producers – 1st level
- Herbivores – 2nd level
- Carnivores – 3rd level or higher

Energy Flow

- As energy moves through the trophic levels, energy is lost
 - o Energy to maintain body heat
 - o Movement
 - o Energy for body processes – digestion, etc.
- Roughly 10% of transferred energy is stored in the next level

AFNR Reflection Page

List five key points that are important to remember from this presentation.

1. Food chains and food webs are different
2. study of the interactions of organisms with one another and their environment
3. Producer- manufacture their own food, such as plants
4. Consumer – obtain energy by eating other organisms
5. The interactions between the living things and the nonliving things in a place.

List three ideas or concepts that this new information has in common with previous things learned.

1. Energy is in a cycle
2. Energy is the ability to work or do
3. Plants and animals need each other

List questions or ideas that remain unclear about the information presented that should be asked for clarity at the appropriate time. N/A