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Chapter 22 - Ecosystems and Biomes
Section 1 - Energy Flow in Ecosystems

- Each of the organisms in an ecosystem fills the energy role of producer, consumer, or decomposer.

✓ producer - an organism that can make its own food.
- use sun's energy to turn water and carbon dioxide into food molecules (photosynthesis)
- Source of all food in an ecosystem.

→ ✓ consumer - an organism that obtains energy by feeding on other organisms.

✓ 1 herbivores - consumers that eat only plants

✓ 2 carnivores - consumers that eat only animals.

3 omnivores - consumers that eat both plants and animals.

✓ - scavenger - a carnivore that feeds on the bodies of dead organisms. (catfish + vultures)

• ✓ Decomposers - break down wastes and dead organisms and return the raw materials to the ecosystem. (nature's recyclers). Mushrooms and bacteria are common decomposers.

The movement of energy through an ecosystem can be shown in diagrams called food chains and food webs

✓ Food chain - a series of events in which one organism eats another and obtains energy.

✓ Food Web - consists of the many overlapping food chains in an ecosystem.

✓ Energy Pyramid - shows the amount of energy that moves from one feeding level to another in a food web.

The most energy is available at the producer level of the pyramid, each level has less energy available than the level below.