

Principles of Ecology

Section 2.2 Flow of Energy in an Ecosystem

name the ultimate source of energy for Earth.

In a _____, matter and energy move from _____ to _____ to _____. A food chain is made of many steps; each organism in the food chain represents a step called a _____. An _____ is a heterotroph that eats only plants, whereas a _____ preys on other heterotrophs. An _____ eats both plants and animals. Nutrients are returned to the soil, air, and water by _____. A model that shows all the possible feeding relationships at each trophic level is called a _____. If you were a scientist and you wanted to determine the weight of living matter at a certain trophic level, you would measure the _____.

Classify each of the following organisms as an autotroph or a heterotroph. Put an A in front of those that are autotrophs and an H in front of those that are heterotrophs.

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| _____ 1. Alligator | _____ 5. Moss | _____ 9. Dandelion |
| _____ 2. Squirrel | _____ 6. Siberian tiger | _____ 10. Rabbit |
| _____ 3. Maple tree | _____ 7. Daffodil | _____ 11. Tomato |
| _____ 4. Whale | _____ 8. Rhinoceros | _____ 12. Cockroach |

autotroph
biomass
carnivore
decomposer
detritivore
food chain
food web
herbivore
heterotroph
omnivore
trophic level