

Glossary

HOW ECOSYSTEMS WORK

C

carbon cycle the movement of carbon from the nonliving environment into living things and back

cellular respiration the process by which cells produce energy from carbohydrates; atmospheric oxygen combines with glucose to form water and carbon dioxide

climax community a final, stable community in equilibrium with the environment

consumer an organism that eats other organisms or organic matter instead of producing its own nutrients or obtaining nutrients from inorganic sources

D

decomposer an organism that feeds by breaking down organic matter from dead organisms; examples include bacteria and fungi

E

ecological succession a gradual process of change and replacement in a community

F

food chain the pathway of energy transfer through various stages as a result of the feeding patterns of a series of organisms

food web a diagram that shows the feeding relationships between organisms in an ecosystem

N

nitrogen cycle the process in which nitrogen circulates among the air, soil, water, plants, and animals in an ecosystem

nitrogen-fixing bacteria bacteria that convert atmospheric nitrogen into ammonia

P

phosphorus cycle the cyclic movement of phosphorus in different chemical forms from the environment to organisms and then back to the environment

photosynthesis the process by which plants, algae, and some bacteria use sunlight, carbon dioxide, and water to produce carbohydrates and oxygen

pioneer species a species that colonizes an uninhabited area and that starts an ecological cycle in which many other species become established

primary succession succession that begins in an area that previously did not support life

producer an organism that can make organic molecules from inorganic molecules; a photosynthetic or chemosynthetic autotroph that serves as the basic food source in an ecosystem

S

secondary succession the process by which one community replaces another community that has been partially or totally destroyed

T

trophic level one of the steps in a food chain or food pyramid; examples include producers and primary, secondary, and tertiary consumers