Chapter 2: Principles of Ecology

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| **Across****3.** symbiotic relationship in which one organism benefits at the expense of another organism**5.** anything that takes up space and has mass**6.** role, or position, of an organism in its environment**11.** large group of ecosystems that share the same climate and have similar types of communities**14.** chemical substance that living organisms obtain from the environment to carry out life processes and sustain life**17.** scientific study of all the interrelationships between organisms and their environment **18.** any living factor in an organism's environment**20.** total mass of living matter at each trophic level**21.** organism that cannot make its own food and gets its nutrients and energy requirements by feeding on other organisms**22.** simplified model that shows a single path for energy flow through an ecosystem**23.** process in which nitrogen gas is captured and converted into a form plants can use**25.** any nonliving factor in an organism's environment, such as soil, water temperature,and light availability**26.** symbiotic relationship in which both organisms benefit**27.** biological community and all the nonliving factors that affect it | **Down****1.** physical area in which an organism lives**2.** heterotroph that preys on other heterotrophs**4.** process in which fixed nitrogen compounds are converted back into nitrogen gas and returned to the atmosphere**7.** group of organisms of the same species that occupy the same geographic place at the same time**8.** heterotroph that decomposes organic material and returns the nutrients to soil. air . and water, making the nutrients available to other organisms**9.** heterotroph that eats only plants**10.** organism that captures energy from sunlight or inorganic substances to produce its own food**12.** exchange of matter through the biosphere involving living organisms, chemical processes, and geological processes**13.** chemical substance that living organisms obtain from the environmentto carry out li**15.** symbiotic relationship in which one organism benefits and the other organism is neither helped nor harmed**16.** relatively thin layer of Earth and its atmosphere that supports life**19.** heterotroph that consumes both plants and animals**24.** model that shows many interconnected food chains and pathways in which energy and matter flow through an ecosystem |