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 |