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|  | Topic/ Objective:  Introduction to Principles of Ecology |
| Essential Question: | |
| Questions: | **BASIC VOCABULARY:**  Ecology: the study of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ with each other and with the environment  Abiotic: Biotic:  Ex. Ex.  **Levels of Organization:**   * + Species \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ that can breed with one another   + Population: all the same \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in an area   + Community: all the difference species \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (fish + zebra mussels + microorganisms)   + Ecosystem: the community plus \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in an area (fish + zebra mussels + water + rope & wood + rainfall + wind)   + Ecoregion: recurring \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ associated with characteristic combinations of soil and landforms that characterize that region   + Biome: large area that has a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and particular species of plants and animals that live there (rainforest)   + Biosphere: the part of the earth that \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   What is the difference between a habitat and a niche?  Things All Organisms Need to Survive  F  W  A  R  P  S  **ENERGY FLOW:**  Autotrophs (producers): capture energy from \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and convert it into \_\_\_\_\_\_\_\_\_\_\_  Heterotrophs (consumers): must \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  Herbivores:  Ex.  Carnivores:  Ex.  Omnivores:  Ex.  Detritivores/ Decomposers:  Ex.  Draw an example of a food web in a lake ecosystem using the following organisms and show the *flow of energy* with arrows.  Grass, frog, squirrel, fish, fox, coyote, spoted owl, snake, berries, mushroom |
| Questions: | **FOOD CHAINS/FOOD WEBS:**  Trophic Levels:  *Producer---> Primary Consumer ---> Secondary Consumer --->*  *Tertiary Consumer*  **ECOLOGICAL PYRAMIDS**  Energy Pyramid: shows how much is produced at each level  When energy is transferred to the next trophic level, typically only \_\_\_\_\_\_\_% of it is used to build new biomass, becoming stored energy (the rest if going to metabolic processes).    Biomagnification: Increasing \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of a substance such as a toxic chemical, in the tissues of organisms at successively higher levels in a food chain.  Write the story of the Bald Eagle. |