Dec 9 Human Impact Stations 1-4

Station 1: Vocabulary Matching

Directions: match the correct vocab word to its definition.

Biosphere	the removal of a species of fish from a body of water at a rate that the species cannot replenish
Extinction	A movement focused on protecting species from extinction, maintaining and restoring habitats, enhancing ecosystem services, and protecting biological diversity
Overfishing	the termination of a kind of species
Conservation	the worldwide sum of all ecosystems
Biodiversity	Proper disposal of used resources so they can be
Recycling	A source or supply that benefits organisms
Resource	The number of different species of plants and

Station 2: Biodiversity and Ecological Services

Directions: Read the paragraph to get some background information. Then, fill out the chart by reading each ecological service and determining how these services help us, and how these services would be affected if there was a change in biodiversity.



Ecosystems as a whole and the many species that live in them do many jobs. Through their everyday activities, organisms end up performing jobs that help make life easier and better for humans. These plants and animals don't do these things on purpose to make Earth better; they are doing them for their own survival. These activities are called ecological services, and we get them for free!

Ecological Service	How It Helps Us	How Changes in Biodiversity Could Harm It
Ecological Service: Birds, insects, and bats help pollinate plants Bees and other insects, birds, and bats use nectar from flowers for food. When they go into the flower for the nectar, they are coated with pollen. When they go to the next flower, some of this pollen rubs off, and the pollinated flower is able to make seeds. This helps make new plants and allows plants to grow fruits and vegetables for us to eat.		

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Ecological Service: Bacteria and fungi decompose once-living matter Living things called decomposers get their food from feeding on dead things. Bacteria and fungi keep dead things from piling up around us, and they also put nutrients such as nitrogen back into the soil so that plants can use them to grow.		
Ecological Service: Plants and animals help control potential pests Dragonflies, bats, and birds eat insects that can bite and sting us, such as mosquitoes. Snakes, foxes, and other predators help keep the population of rodents, such as mice, down so that they won't invade our homes.		
Ecological Service: Plants help control flooding and soil erosion Plants slow down the flow of water so that soil erosion doesn't happen too quickly. When the water is moving more slowly, it gives the soil time to absorb the water so that there is less flooding.		
Ecological Service: Plants and animals provide medicines Many of the medicines we have today originate from substances in the natural world. The tropical rain forest supplies many of these plants and animals. Many of the best drugs for treating diseases come from plants. Antibiotics are made from bacteria and fungi.		
Ecological Service: Wetlands help purify water Wetlands slow dirty water as it goes by, and the plants inside the wetland trap some of the pollutants. Aquatic animals, such as oysters, help filter the water.		

Station 3: Extinction in Tennessee

Directions: Use the link below to read about the Passenger Pigeon and why it went extinct. Fill in the chart using the information that you learn from the website. Then answer the follow up questions below.

Organisms are considered to be extinct when there are no more living members of their species. A review of fossils in the geologic record shows that extinction events have occurred throughout the history of life on Earth. Ice ages, meteor strikes, and other natural events have resulted in the extinction of various species.



However, in modern times, habitat destruction is the most common reason for extinction. Often it is human activities that cause changes in habitats to occur. Several organisms that once thrived in Tennessee are now extinct. One of these organisms is the Passenger Pigeon (picture on the right).

Link: **CLICK HERE**

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Extinction of the Passenger Pigeon

Description of organisms What does it look like?	
Description of organism's natural habitat Where did it live?	
Reason for Extinction Why did it go extinct?	
Human Impact How did humans contribute to its extinction?	

Station 4: Writing about Human Impact

Directions: Read the scenario, then answer the writing prompt using the RACE strategy.

R- restate the question

A-answer the question

C-cite your evidence

E-explain your answer

Scenario

Human interaction can have both positive and negative effects on an ecosystem. The negative can be found in urban sprawl, in which housing developments overtake ecosystems, rendering them uninhabitable for their native organisms. The positive can be found in the regulated requirements in coal mining, which require that the land be returned to pre-mining state or better.

External Data

The picture below is from the Flower Garden coral reefs in the Gulf of Mexico. The coral reef is the result of an oil platform that sank in the area. Coral needs an anchor to sustain growth. Other animals are found living among the coral reefs.

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Prompt

Write a scientific explanation that describes the changes that occur in a habitat due to human interactions with the ecosystem.

R-

A-

C-

E-

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