Ecosystems Under Pressure

Trace how ancient people changed the land and water they depended on.

SS.6.G.3.2 "Analyze the impact of human populations on the ancient world's ecosystems."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline three human actions in the passage, then circle the ecosystem effect linked to each action. Number each action-effect pair to show which ideas go together.

Ancient Choices, Changing Ecosystems

1 More than four thousand years ago, farmers in Mesopotamia settled between the Tigris and Euphrates Rivers. Seasonal floods left rich soil, and people dug canals to carry river water to fields farther from the banks. Irrigation helped cities such as Ur grow because farmers could raise more grain. Yet canals also changed the wetland ecosystem. Water was redirected from some natural channels, and fields replaced areas where reeds, fish, birds, and other living things had found food and shelter.

2 Over many generations, repeated irrigation caused another problem. In the hot, dry climate, water evaporated from watered fields. It left salts behind in the soil. As salt built up, some crops grew poorly, so farmers had to plant hardier barley instead of wheat in some places. Less productive farmland could mean that people cleared or irrigated additional land. A choice that first increased food supplies therefore placed pressure on soil, water, and nearby habitats as well.

3 Human population growth affected ecosystems in other ancient regions. Around the Mediterranean Sea, people cut forests for fuel, buildings, and ships. Removing many trees exposed soil to rain and wind. In some places, soil washed downhill into streams, which could make farmland less useful and muddy river habitats. Grazing sheep and goats added pressure when herds ate young plants faster than they could regrow. Ancient people depended on ecosystems, but their farming, building, and animal raising could also reshape them.

2 ANSWER WITH EVIDENCE

Use the passage

1. How did canal building change the wetland ecosystem in Mesopotamia?

2. Explain the chain of effects that could lead from repeated irrigation to pressure on additional land.

3. How could cutting forests near the Mediterranean affect both farmland and river habitats?

4. What does the passage suggest about why a helpful human choice can later harm an ecosystem? Use irrigation or tree cutting as evidence.

3 YOUR TURN

Your own words

Imagine an ancient river settlement whose population has grown. Choose one human action, such as clearing land, cutting trees, building canals, or grazing animals, and write three sentences that explain a chain of effects on the ecosystem.

ANSWER KEY

Ecosystems Under Pressure

GRADE 6 · SS.6.G.3.2

PART 1 · READ AND MARK

Underline three human actions in the passage, then circle the ecosystem effect linked to each action. Number each action-effect pair to show which ideas go together. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	How did canal building change the wetland ecosystem in Mesopotamia?	**Canals redirected water from natural channels, and fields replaced habitat that had provided food and shelter for wetland living things.**
2	Explain the chain of effects that could lead from repeated irrigation to pressure on additional land.	**Water evaporated and left salt in the soil. Crops then grew poorly, so farmers might clear or irrigate more land to produce enough food.**
3	How could cutting forests near the Mediterranean affect both farmland and river habitats?	**Without trees, soil could wash into streams. This could make farmland less useful and make river habitats muddy.**
4	What does the passage suggest about why a helpful human choice can later harm an ecosystem? Use irrigation or tree cutting as evidence.	**A choice can meet a human need but create later environmental effects. For example, irrigation increased food supplies at first, but salt built up in soil and reduced crop growth.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

As the settlement grew, people cut trees for homes and cleared riverbank plants for fields. Without roots holding the soil, rain washed soil into the river. Muddy water could harm fish habitat, and fewer trees could leave animals with less shelter.

Accept answers that accurately connect a human population need or activity to a specific ecosystem change. For the open response, look for a logical action-to-effect chain and an impact on land, water, plants, or animals.