Booms and Burdens

Economic gains and environmental costs in the West

SS24.US1.14b "Describe the economic and environmental impacts of new industries during the settlement of the West, including the mining and cattle industries."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline two economic effects and circle two environmental effects for each industry in the passage. Label each mark M for mining or C for cattle.

What Western Industries Changed

1. In the 1870s, a miner near Leadville, Colorado, might have watched a wagon carry ore toward a smelter while another hauled in timber. Discoveries of silver and other minerals drew workers, merchants, and investors to western mining districts. Mining created wages and demand for food, tools, freight service, and rail connections. Some camps grew into towns with stores and banks, but a boom could end when rich ore ran out or prices fell. Profits were uneven: companies and investors often gained more than workers, whose jobs could disappear when a mine closed.

2. The same mine also reshaped the land. Crews cut trees to support tunnels and fuel furnaces, leaving some slopes bare and more vulnerable to erosion. Digging and dumping waste rock disturbed soil and streams. Water used to separate metals from ore could carry harmful substances downstream; smelting could release smoke that damaged nearby plants. These effects did not vanish when a camp emptied. A closed mine might leave piles of waste that continued to pollute water. The jobs and supplies generated by a mining boom therefore came with costs that people living nearby could bear long after the wages stopped.

3. Farther east, cattle ranchers raised herds on grasslands, then drove them to railheads in Kansas for shipment to eastern meat markets. Sales brought income to ranchers and work to cowboys, rail crews, and meatpackers. Open-range grazing also had environmental costs. Large herds could eat grass faster than it regrew and trample streambanks, damaging soil and waterways, especially during drought. As ranchers expanded, fences could block wildlife movement and limit access to grazing land. Like mining, ranching linked western resources to distant buyers, but its gains depended partly on changes to land and water.

2 ANSWER WITH EVIDENCE

Use the passage

1. How could a mining boom help a town's economy, and why might that growth end?

2. Describe two ways mining changed the environment. Why could one of those changes remain a problem after a mine closed?

3. How did cattle sales create work for people besides ranchers?

4. Compare one environmental cost of cattle ranching with one environmental cost of mining. What activity caused each cost?

3 YOUR TURN

Your own words

Imagine a western county deciding whether to expand mining, cattle ranching, or both. Write a recommendation that weighs one economic benefit and one environmental cost of each industry, then proposes one specific way to reduce a cost.

ANSWER KEY

Booms and Burdens

GRADE 10 · SS24.US1.14b

PART 1 · READ AND MARK

Underline two economic effects and circle two environmental effects for each industry in the passage. Label each mark M for mining or C for cattle. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	How could a mining boom help a town's economy, and why might that growth end?	**Mining created wages and demand for supplies and services, which helped towns grow. Growth could end when rich ore ran out or mineral prices fell.**
2	Describe two ways mining changed the environment. Why could one of those changes remain a problem after a mine closed?	**Cutting trees left slopes vulnerable to erosion, and mining waste could pollute streams. Waste piles could keep polluting water after a mine closed.**
3	How did cattle sales create work for people besides ranchers?	**Cattle drives and shipment to eastern markets provided work for cowboys, rail crews, and meatpackers.**
4	Compare one environmental cost of cattle ranching with one environmental cost of mining. What activity caused each cost?	**Large cattle herds could eat too much grass and trample streambanks. Mining crews could cut trees for tunnels and furnaces, leaving slopes vulnerable to erosion.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

I would allow limited growth in both industries, but only with safeguards. More mining could create jobs and support stores, yet waste rock could pollute water long after a mine closed. More cattle sales could pay ranchers and support railroad work, yet heavy grazing could strip grass and damage streambanks. County leaders should require mining companies to keep waste piles away from streams. This would reduce one risk while the county considers whether the income from new mines is worth their lasting environmental costs.

Accept other passage-supported economic benefits and environmental costs. The recommendation may favor either industry or both if it weighs both industries and proposes a specific, relevant way to reduce harm.