

Pressure on Places

Trace how human needs and industrial activity can affect environments.

8.8c "Pollution, population growth, the consumption of natural resources, clearing of land for human sustenance, and large-scale industrialization have put added stress on the global environment."

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Underline each human action that adds environmental stress, circle each environmental or health effect, and write the same number beside each action and effect it causes.

When Human Needs Leave a Mark

- ① At Love Canal in Niagara Falls, New York, industrial chemical waste was buried from 1942 to 1953. A school and more homes were later built at or near the disposal site. By the late 1970s, leaking chemicals had created serious contamination concerns. Chemicals moved through soil and water near places where people lived and learned. The case showed that industrial waste can remain dangerous for decades and that land-use decisions can expose communities to old pollution.
- ② Far from Love Canal, pollutants released by power plants and industrial facilities can travel through the air. Sulfur dioxide and nitrogen oxides can combine with moisture, producing acid rain or snow. In the Adirondack Park region, acid deposition harmed some lakes, streams, forests, and the plants and animals that depend on them. This example shows that energy use and industrial emissions can damage ecosystems far from the source and make recovery difficult for many species.
- ③ In 1979, an accident at the Three Mile Island nuclear power plant in Pennsylvania led to a partial meltdown in one reactor. Small amounts of radioactive gases were released, and the event raised public concern about nuclear safety. Nuclear plants produce electricity without burning coal or oil during operation, but accidents and radioactive waste require careful management. Three Mile Island shows that meeting energy demand can involve environmental risks, so communities and governments must weigh benefits and safeguards.

2 ANSWER WITH EVIDENCE _____ Use the passage

1 What human action at Love Canal led to pollution, and what path did the pollution take?

2 How did later construction at Love Canal put people near an existing pollution hazard?

3 How does the Adirondack Park example show that industrial pollution can affect places far from its source?

4 What trade-off about energy does the Three Mile Island example describe?

3 YOUR TURN _____ Your own words

Choose food, housing, or energy. Write four sentences that explain how meeting a growing population's need for it could stress the environment, name two effects, and describe one safeguard that could reduce the stress.

PART 1 • READ AND MARK

Underline each human action that adds environmental stress, circle each environmental or health effect, and write the same number beside each action and effect it causes. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	What human action at Love Canal led to pollution, and what path did the pollution take?	Industrial chemical waste was buried at Love Canal. Leaking chemicals moved through soil and water.
2	How did later construction at Love Canal put people near an existing pollution hazard?	A school and more homes were built at or near the earlier chemical-waste disposal site, putting residents and students near leaking chemicals.
3	How does the Adirondack Park example show that industrial pollution can affect places far from its source?	Pollutants from power plants and industrial facilities can travel through the air. They can form acid rain or snow that harms lakes, streams, forests, plants, and animals far away.
4	What trade-off about energy does the Three Mile Island example describe?	Nuclear plants can produce electricity without burning coal or oil during operation, but accidents and radioactive waste can create environmental risks that require safeguards.

PART 3 • YOUR TURN (SAMPLE ANSWER)

As a city's population grows, farmers may clear nearby forests to grow more food. Clearing land can remove animal habitat and allow soil to wash into streams. The city can protect some forests and support farms that use less land while reducing food waste. These choices can meet needs while lowering environmental stress.

Accept equivalent cause-and-effect explanations that use evidence from the passage. For the open response, accept a realistic human need, two connected environmental effects, and a feasible safeguard.