When Water Changed

Evaluate evidence and responses to a public health crisis

USH.P.1.1.C "Gather and evaluate information regarding complex problems, assessing individual and collective actions taken to address them."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline two kinds of evidence and circle one limit on what each can show. Number one individual action and one collective action taken to address the problem.

Flint's Search for Safe Water

1 In April 2014, Flint, Michigan, began drawing drinking water from the Flint River while waiting for a new regional pipeline. The city had previously bought treated water from Detroit. The river water was not treated with corrosion control chemicals, which help keep lead from dissolving out of older pipes and plumbing. Residents soon reported brown water, strange smells, and rashes. Those signs showed serious concerns, but color and smell alone could not measure lead. City and state officials initially told residents the water met safety requirements. Families faced a hard choice: keep using tap water or pay for bottled water while seeking reliable evidence.

2 Resident LeeAnne Walters collected tap-water samples and pushed officials to investigate. In 2015, a Virginia Tech team tested water from Flint homes and found high lead levels in some samples. Because many households volunteered to submit samples, the results could identify dangerous homes but could not precisely represent every home in the city. Pediatrician Mona Hanna-Attisha and colleagues compared children's blood-test records from before and after the switch. They reported that the share of children with elevated blood lead levels had increased. Blood tests revealed exposure, but they could not identify the exact pipe or tap responsible for each child's result.

3 Some officials disputed the research at first, but growing evidence and public pressure led to changes. Flint returned to Detroit's water system in October 2015. A federal emergency declaration in 2016 brought additional resources, and crews began replacing lead service lines, the pipes connecting water mains to buildings. Returning to treated water reduced the risk of new lead exposure, but it did not remove damaged pipes overnight. Replacement work took years, and residents still needed clear test results to judge whether their own water was safe. The crisis shows why residents' reports, independent testing, and public action all matter when officials make decisions.

2 ANSWER WITH EVIDENCE

Use the passage

1. Why were residents' reports important even though they could not prove that the water contained lead?

2. What could the Virginia Tech water samples show, and what could they not show about Flint as a whole?

3. How did the blood-test records add to the water-test results? Name one limit of the blood tests.

4. Why was returning to Detroit's water system not enough by itself? What information did residents still need?

3 YOUR TURN

Your own words

A school district may cancel its only late bus, and students disagree about how many riders depend on it. In one paragraph, propose two sources of evidence, explain one limit of each, and recommend one individual action and one collective action, including how you would check whether the actions worked.

ANSWER KEY

When Water Changed

HIGH SCHOOL · USH.P.1.1.C

PART 1 · READ AND MARK

Underline two kinds of evidence and circle one limit on what each can show. Number one individual action and one collective action taken to address the problem. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	Why were residents' reports important even though they could not prove that the water contained lead?	**The reports alerted people to a possible problem and helped prompt investigation, but color, smell, and rashes could not measure lead.**
2	What could the Virginia Tech water samples show, and what could they not show about Flint as a whole?	**They showed high lead levels in some homes, but volunteer sampling could not precisely represent every home in Flint.**
3	How did the blood-test records add to the water-test results? Name one limit of the blood tests.	**The records showed an increased share of children with elevated blood lead levels after the switch. They could not identify the exact pipe or tap responsible for each child's result.**
4	Why was returning to Detroit's water system not enough by itself? What information did residents still need?	**The switch did not remove damaged pipes overnight. Residents still needed clear test results to judge whether their own water was safe.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

I would examine a month of late-bus ridership counts, but those numbers would not show why students ride. I would also interview students who stay after school, though volunteers might not represent everyone affected. One student could record when they use the bus and share that record with the school board. The district could try a shorter late-bus route instead of canceling service. To judge the plan, it could compare ridership and after-school participation before and during the trial, while asking students whether they can still get home.

Accept other passage-supported explanations that distinguish evidence of a problem from evidence of its size or source. For the open task, look for two distinct sources with plausible limits, actions at both levels, and a way to assess results.