Evidence Under the Pump

Compare evidence, expertise, and conclusions across sources.

9.RI.3 "Integration of Concepts Compare the perspectives and viewpoints of two or more authors regarding their treatment of the same or similar topics…"

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline details Snow uses to support his explanation, circle details Farr uses, and write Q beside details that show how either author's qualifications may shape the account.

Two Views of Cholera

1. In 1854, cholera killed hundreds of people near Broad Street in London's Soho district. Physician John Snow investigated the outbreak in his book On the Mode of Communication of Cholera. Snow mapped deaths and interviewed residents about their water. He argued that a contaminated public pump spread the disease. He highlighted two exceptions: brewery workers drank beer instead of pump water, and a workhouse had its own water supply. Snow's medical training and close, local investigation led him to emphasize patterns of exposure rather than the smell of the neighborhood.

2. Statistician William Farr initially reached a different conclusion in reports for the General Register Office. Farr collected mortality records from across London, a broader data set than Snow's neighborhood study. He connected cholera deaths to low elevation and crowded districts, factors he associated with polluted air, often called miasma. His expertise in population statistics made his tables useful, but his belief about airborne disease shaped his explanation. Farr did not focus on the Broad Street pump or on the water choices of individual households. Later, after studying another outbreak, Farr accepted stronger evidence that contaminated water carried cholera.

3. Modern historians compare both accounts with additional evidence. Snow's map was clear because it linked addresses, deaths, and a specific water source, although it could not by itself prove that the pump water contained the cause of cholera. Records from the 1854 outbreak, including low death rates at the brewery and workhouse, support his exposure pattern. In 1884, German physician Robert Koch identified the bacterium that causes cholera, giving later scientists biological evidence for waterborne transmission. Farr's wide records accurately showed where deaths were concentrated, but his miasma conclusion was not supported by these later findings. Comparing sources shows why accurate data can still lead to a weak conclusion.

2 ANSWER WITH EVIDENCE

Use the passage

1. How do Snow and Farr differ in the evidence they emphasize? Include one detail from each account.

2. How did each author's qualifications or method affect the viewpoint in the account?

3. Which part of Farr's account did later evidence support, and which conclusion did it challenge?

4. Evaluate Snow's conclusion. What makes it clear and credible, and what limitation does the passage identify?

3 YOUR TURN

Your own words

Choose a health, environment, or technology claim discussed by two informational sources you can access. In exactly three sentences, compare what the sources emphasize, explain how one author's qualifications affect your trust, and name a third source that could corroborate or challenge a conclusion.

ANSWER KEY

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GRADE 9 · 9.RI.3

PART 1 · READ AND MARK

Underline details Snow uses to support his explanation, circle details Farr uses, and write Q beside details that show how either author's qualifications may shape the account. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	How do Snow and Farr differ in the evidence they emphasize? Include one detail from each account.	**Snow emphasizes a local map, water interviews, and exceptions involving the brewery and workhouse. Farr emphasizes London-wide mortality records, low elevation, and crowded districts.**
2	How did each author's qualifications or method affect the viewpoint in the account?	**Snow's medical training and local investigation led him to focus on exposure to water. Farr's statistical expertise supported broad mortality tables, but his belief in miasma shaped his airborne-disease explanation.**
3	Which part of Farr's account did later evidence support, and which conclusion did it challenge?	**Later evidence supported that Farr's records accurately showed where deaths were concentrated. It challenged his conclusion that polluted air, or miasma, caused cholera.**
4	Evaluate Snow's conclusion. What makes it clear and credible, and what limitation does the passage identify?	**Snow clearly linked addresses, deaths, and a water source. The brewery and workhouse records, plus Koch's later discovery, support his conclusion, but Snow's map alone could not prove that the pump water contained the cause of cholera.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

The NOAA Marine Debris Program explains that preventing waste at its source is essential, while The Ocean Cleanup describes technology designed to remove plastic from rivers and oceans. NOAA scientists and program staff have expertise in marine debris research, while The Ocean Cleanup engineers have direct knowledge of their devices but may emphasize technology they build. I would check a United Nations Environment Programme report for evidence about which methods reduce plastic pollution most effectively.

Accept equivalent comparisons that accurately distinguish Snow's water-exposure evidence from Farr's population-level evidence and miasma conclusion. For the open task, accept relevant sources and a defensible evaluation that connects qualifications, emphasis, and corroboration.