Mapping a Mystery

Read evidence, weigh limits, and form a defensible conclusion.

11.DSR.B "Proficiently read and comprehend a variety of literary and informational texts that exhibit complexity at the lower range of the grades 11-12 band to generate and respond logically to literal, inferential, evaluative, synthesizing..."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline each detail that supports Snow's water explanation. Circle each detail that limits a conclusion or calls for caution, so you can judge how strongly the evidence supports the claim.

The Broad Street Investigation

1. In late August 1854, cholera spread through Soho, a crowded London neighborhood. Many residents believed the disease traveled in foul air, a theory called miasma. Physician John Snow suspected another route. He visited homes, spoke with families, and placed deaths on a street map. The marks clustered near the public water pump on Broad Street. Snow did not treat the map as proof by itself. He compared households, asked where people obtained water, and looked for cases that did not fit the pattern. His investigation turned ordinary addresses into evidence about a possible shared source.

2. One apparent exception helped Snow test his idea. Workers at a nearby brewery drank mostly beer made on site and had few cholera deaths. Meanwhile, a woman who had moved away from Soho became ill after having Broad Street water delivered because she preferred its taste. Such details strengthened the water explanation, but they also revealed limits in the map: it recorded where victims lived, not every place they had traveled or every liquid they had consumed. After local officials removed the pump handle, the outbreak was already declining, so that action alone could not prove it ended the epidemic. Later examination found sewage contamination near the well.

3. Snow's work mattered not because one dramatic clue settled the question, but because he combined several kinds of evidence and revised his confidence as new information appeared. His map made a hidden pattern visible to officials who had been focused on air. Yet the investigation did not immediately persuade everyone, and germ theory was not fully established in 1854. For modern readers, the episode offers a caution as well as a success story. Visual displays can make a claim seem certain, but responsible readers ask what information is missing, whether alternative explanations were considered, and how strongly the evidence supports a conclusion.

2 ANSWER WITH EVIDENCE

Use the passage

1. What are two actions Snow took besides placing deaths on a map?

2. What can you infer from the brewery workers' low number of cholera deaths? Explain how this detail relates to Snow's explanation.

3. Why does the passage say that removing the pump handle could not, by itself, prove that the action ended the epidemic?

4. How should a reader evaluate Snow's water explanation after considering all three paragraphs? State a conclusion and give two reasons.

3 YOUR TURN

Your own words

Imagine your school posts a map showing that most students who missed class on one day were in rooms near the cafeteria. In exactly three sentences, state a possible explanation, name one additional piece of evidence you would seek, and explain how that evidence would strengthen or change your conclusion.

ANSWER KEY

Mapping a Mystery

GRADE 11 · 11.DSR.B

PART 1 · READ AND MARK

Underline each detail that supports Snow's water explanation. Circle each detail that limits a conclusion or calls for caution, so you can judge how strongly the evidence supports the claim. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	What are two actions Snow took besides placing deaths on a map?	**He spoke with families and compared households. He also asked where people obtained water and examined cases that did not fit the pattern.**
2	What can you infer from the brewery workers' low number of cholera deaths? Explain how this detail relates to Snow's explanation.	**Because the workers mostly drank beer made at the brewery rather than Broad Street water, their low death rate supports the idea that contaminated water, not simply being in Soho, was linked to cholera.**
3	Why does the passage say that removing the pump handle could not, by itself, prove that the action ended the epidemic?	**The outbreak was already declining when officials removed the handle, so the decline could have had another cause or could have begun before the action.**
4	How should a reader evaluate Snow's water explanation after considering all three paragraphs? State a conclusion and give two reasons.	**A reader should view the water explanation as strongly supported, not absolutely proven, because the clustered deaths and comparative cases support it while incomplete travel and consumption data limit certainty.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

The pattern might suggest that an illness spread among students who ate near the cafeteria. I would compare absence records with information about where absent students ate and whether they reported similar symptoms. If many absent students shared meals and symptoms, the explanation would be stronger, but a pattern alone would not prove the cafeteria caused the absences.

Accept logically supported conclusions that distinguish strong evidence from conclusive proof. For the open task, accept any plausible explanation, relevant additional evidence, and clear statement of how that evidence would affect the conclusion.