Tracing the Flood

Use place-based evidence to investigate a historical event.

8.P.2.3.A "Answer geographic questions and conduct investigations by acquiring, organizing, and interpreting information about the modern world and historical events."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline the geographic question, circle the three source types, and put a star beside one limit of each source so you can judge the evidence.

Where Did Harvey's Water Go?

1 In August 2017, Hurricane Harvey brought days of heavy rain to the Houston area of Texas. Streets flooded, and many people left their homes. Yet water did not rise equally everywhere. A useful geographic question is, "Why did some Houston neighborhoods flood more deeply than others?" To investigate, a researcher needs information tied to place and time, not just a total rainfall number for the entire city. Houston is crossed by bayous, slow-moving waterways that carry rainwater toward larger channels and Galveston Bay. Low-lying land beside them can flood when the bayous rise.

2 First, the researcher collects rain-gauge readings from several locations for the same dates. The readings show where and when heavy rain fell, but they do not show where water remained. Next, elevation records help identify lower ground near a bayou. The researcher organizes rain readings by neighborhood and date, then matches elevation records to those places. A low area with heavy rain might face greater flood risk, but elevation alone cannot prove a particular street flooded. Streets, drainage channels, and buildings can change how water moves across the ground.

3 Finally, the researcher reads interviews with residents who describe when floodwater reached their streets. These reports can add local detail, but memories may be incomplete, and one account cannot represent a whole neighborhood. If rain readings, elevation records, and several accounts point to the same location, the explanation becomes stronger. If they conflict, the researcher checks the dates and locations before deciding what happened. This method does not claim that every flood had one cause. It connects evidence from different sources to a careful answer about where flooding occurred and why.

2 ANSWER WITH EVIDENCE

Use the passage

1. Why should the researcher compare information from different neighborhoods instead of using one rainfall total for Houston?

2. What might rain-gauge readings and elevation records together suggest about a neighborhood? What can they not prove?

3. How can residents' interviews help locate flooding, and why should the researcher not rely on just one account?

4. If sources disagree about flooding in one neighborhood, what should the researcher check before reaching a conclusion?

3 YOUR TURN

Your own words

Investigate the passage's geographic question with two additional source types not named in the passage. Name each source, explain what place-based evidence it could provide, and describe how you would compare both with a source from the passage before drawing a conclusion.

ANSWER KEY

Tracing the Flood

GRADE 8 · 8.P.2.3.A

PART 1 · READ AND MARK

Underline the geographic question, circle the three source types, and put a star beside one limit of each source so you can judge the evidence. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	Why should the researcher compare information from different neighborhoods instead of using one rainfall total for Houston?	**Water did not rise equally everywhere. Information tied to each place helps explain differences between neighborhoods.**
2	What might rain-gauge readings and elevation records together suggest about a neighborhood? What can they not prove?	**Heavy rain and low ground might suggest greater flood risk, but these records cannot prove that a particular street flooded.**
3	How can residents' interviews help locate flooding, and why should the researcher not rely on just one account?	**Residents can report when water reached their streets. One person's memory may be incomplete and cannot represent a whole neighborhood.**
4	If sources disagree about flooding in one neighborhood, what should the researcher check before reaching a conclusion?	**The researcher should check the dates and locations connected to each source.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

Dated road-closure notices could identify Houston streets reported impassable and when. Radar satellite images taken during the flood could help identify areas covered by water. I would compare the notice locations and image dates with rain-gauge readings from nearby sites. If the sources point to flooding in the same places at the same time, they would support a place-based explanation, although a road closure alone would not prove how deep the water was.

Accept other source types not named in the passage if each could provide evidence tied to a place and the response explains how to compare that evidence with a passage source. Responses should distinguish evidence of flooding from evidence of a possible cause.