When Land Shapes Storms

Use sources to trace how geography affected Puerto Rico during Hurricane Maria.

6.C.1.4 "Describe and analyze the role of geographic factors on events that impact the people and places of the Western Hemisphere, using both primary and secondary sources."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline two geographic features, circle one effect each feature had on people, and number the primary source 1 and the secondary source 2. Use your marks to connect the land, the storm, and the evidence.

One Storm, Different Dangers

1 On September 20, 2017, Hurricane Maria struck Puerto Rico, an island in the Caribbean Sea. The storm brought powerful winds and heavy rain. Many people lived along the coast, where roads, ports, and homes were exposed to waves and rising water. Farther inland, steep mountains changed what happened to the rain. Water rushed downhill into streams, and soaked soil slid down slopes. These different landforms meant that a single storm could threaten one community with coastal flooding and another with landslides.

2 Before Maria reached Puerto Rico, the National Hurricane Center warned that heavy rain could cause dangerous flooding and mudslides. That warning is a primary source because it was issued while people were preparing for the storm. It shows what experts expected, not which places would actually be blocked. A later U.S. Geological Survey summary brought together researchers' findings about the storm. This secondary source describes thousands of landslides across Puerto Rico. Reading both sources helps us compare an early warning with evidence gathered after Maria passed.

3 On steep slopes, rain loosened soil and sent mud and rock across mountain roads. Crews then had trouble reaching some communities and repairing damaged power lines. Along low coasts, storm surge and large waves threatened roads and buildings. A forecast could warn people about such dangers, but later research could show where the land actually changed. The island's shape mattered long after the wind stopped: blocked roads slowed the delivery of supplies. The same storm had different effects because communities faced different landforms.

2 ANSWER WITH EVIDENCE

Use the passage

1. How did Puerto Rico's coast and mountains create different dangers during Maria?

2. Why would the National Hurricane Center's warning about mudslides matter to people near steep slopes?

3. How do the later findings about landslides help explain a problem people faced after the storm?

4. Why would you use both the early warning and the later summary to study how geography affected people?

3 YOUR TURN

Your own words

Imagine a spring flood along a wide river in the Mississippi River Valley. In four sentences, explain how a flat floodplain could affect homes and travel, then name one primary source and one secondary source you would use to check your explanation.

ANSWER KEY

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GRADE 6 · 6.C.1.4

PART 1 · READ AND MARK

Underline two geographic features, circle one effect each feature had on people, and number the primary source 1 and the secondary source 2. Use your marks to connect the land, the storm, and the evidence. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	How did Puerto Rico's coast and mountains create different dangers during Maria?	**Waves and rising water threatened coastal roads and buildings, while heavy rain caused landslides on steep mountain slopes.**
2	Why would the National Hurricane Center's warning about mudslides matter to people near steep slopes?	**Rain could loosen soil on steep slopes and send mud and rock across roads near their communities.**
3	How do the later findings about landslides help explain a problem people faced after the storm?	**The findings show that landslides occurred across the island. Mud and rock blocked mountain roads, making it harder to reach communities, repair power lines, and deliver supplies.**
4	Why would you use both the early warning and the later summary to study how geography affected people?	**The warning shows which land-related dangers experts expected before the storm. The later summary gives evidence of landslides that occurred, helping show whether that danger became real.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

A flat floodplain could let river water spread over roads and homes. Families might have to leave, and buses could have trouble reaching neighborhoods. A dated letter from a resident describing closed roads would be a primary source. A later history article that compares several flood records would be a secondary source.

Accept other supported links between landforms and effects on people. For Your Turn, accept a firsthand record made during the flood as a primary source and a later account that uses earlier records as a secondary source.