When Weather Arrives

Connect Alabama's geography to weather threats and safety decisions.

SS24.AS.4 "Explain how Alabama's location creates potential weather threats to the state and identify ways in which Alabamians prepare for and respond to natural disasters."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB In each paragraph, underline a location or land feature, circle a weather threat connected to it, and label one preparation P and one response R.

Three Places, Three Weather Risks

1 At a seafood market in Mobile, a radio report can change the day's plans. Alabama's short Gulf Coast faces the Gulf of Mexico, where warm water can fuel tropical storms and hurricanes. Winds may damage roofs and knock out power, while storm surge pushes seawater onto low coastal land. Heavy rain can flood roads even farther inland. Coastal residents can check forecasts, know evacuation routes, and keep medicine and water ready. When officials order an evacuation, families leave before roads become dangerous. After the storm, they wait for officials to say routes are safe before returning.

2 Far from the beach, Alabama still faces fast-moving storms. The state lies where warm, moist air from the Gulf often meets cooler, drier air moving across the United States. In some weather patterns, this clash, along with changing winds at different heights, can help produce severe thunderstorms and tornadoes. Tornadoes can strike with little time to act, including after dark. Residents can sign up for weather alerts and choose an interior room on the lowest floor, away from windows. When a tornado warning is issued for their area, they move there and protect their heads. Afterward, they avoid fallen power lines and report damage.

3 A different danger can grow along Alabama's rivers and creeks. Rain from Gulf storms or repeated thunderstorms drains into waterways, and low areas can flood quickly. In hilly parts of the state, runoff can rush into narrow valleys; on flat ground, water may spread across streets. People can learn whether their home is in a flood-prone area and plan a route to higher ground. If water covers a road, drivers turn around rather than test its depth. After flooding, residents follow local guidance about unsafe water and document damage before cleanup when it is safe.

2 ANSWER WITH EVIDENCE

Use the passage

1. How does Alabama's location by the Gulf create two hurricane hazards? Name one way coastal residents prepare.

2. Why can tornadoes threaten Alabamians far from the coast? What should residents do when a tornado warning is issued for their area?

3. How can hilly land increase flood danger near a creek? What should a driver do if water covers the road?

4. How can a Gulf storm threaten people who live inland? Name one action residents can take after flooding.

3 YOUR TURN

Your own words

A principal in a hilly Alabama town near a creek expects heavy rain from a Gulf storm. Write four or five sentences for a school safety notice that explain the flood threat and give one step to take before the rain, one during flooding, and one afterward.

ANSWER KEY

When Weather Arrives

HIGH SCHOOL · SS24.AS.4

PART 1 · READ AND MARK

In each paragraph, underline a location or land feature, circle a weather threat connected to it, and label one preparation P and one response R. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	How does Alabama's location by the Gulf create two hurricane hazards? Name one way coastal residents prepare.	**Warm Gulf water can fuel hurricanes, whose winds can damage roofs and whose storm surge can flood low coastal land. Residents can prepare by knowing evacuation routes.**
2	Why can tornadoes threaten Alabamians far from the coast? What should residents do when a tornado warning is issued for their area?	**Warm, moist Gulf air can meet cooler, drier air over Alabama; with changing winds at different heights, some storms can produce tornadoes. Residents should move to an interior room on the lowest floor and protect their heads.**
3	How can hilly land increase flood danger near a creek? What should a driver do if water covers the road?	**Runoff can rush into narrow valleys and raise creek levels. The driver should turn around.**
4	How can a Gulf storm threaten people who live inland? Name one action residents can take after flooding.	**Heavy rain from a Gulf storm can drain into inland waterways and flood low areas. Afterward, residents can follow local guidance about unsafe water.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

Our school is near a creek in hilly Alabama, so heavy rain from a Gulf storm could rush downhill and flood nearby roads. Before the rain, staff should check weather alerts and plan a route to higher ground. If floodwater covers a road, bus drivers must turn around. After the water falls, staff should follow local guidance before using damaged roads.

Accept other preparations and responses stated in the passage when students connect them to the relevant threat. For Your Turn, look for a clear link between hilly land, runoff, and flooding, plus distinct actions before, during, and after the event.