Three Climate Clues

Read how location shapes climate and daily life.

6.C.2.3 "Explain how the factors of latitude, elevation, and proximity to bodies of water influence climate and human activities."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline one climate effect in each paragraph, circle one human activity linked to it, and write 1 beside the latitude explanation, 2 beside the elevation explanation, and 3 beside the nearby-water explanation.

A Market Trip Across Climates

1. A family selling food visits two markets, one near the equator in Ecuador and one much farther south in Chile. Near the equator, sunlight reaches the ground more directly throughout the year, so temperatures usually stay warm. Farther south, the sun's angle and the length of daylight change more with the seasons, bringing cooler winters. Vendors in the warm market can sell fruit grown in the area through much of the year. At the southern market, farmers plan planting around a shorter warm season.

2. The family then travels from Guayaquil, a low coastal city in Ecuador, to Quito, high in the Andes. Both cities lie close to the equator, yet Quito is much cooler because air temperature generally drops as elevation increases. A jacket that felt unnecessary in Guayaquil may be useful in Quito, especially at night. On nearby highland farms, people grow crops such as potatoes that do well in cooler conditions. In the lowlands, warmer weather supports crops such as bananas. Latitude alone cannot explain this difference.

3. Finally, the family compares two towns at about the same latitude in southern Chile. One sits by the Pacific Ocean, while the other is farther inland. Water heats and cools more slowly than land, so the ocean can soften summer heat and winter cold near the shore. Inland temperatures tend to change more between seasons. People in the coastal town may fish for work, using the nearby water as well as its milder temperatures. Inland growers must pay close attention to seasonal cold when choosing when to plant.

2 ANSWER WITH EVIDENCE

Use the passage

1. How does being farther from the equator affect the southern market's climate and farmers' planting plans?

2. Why might the family need a jacket in Quito but not in Guayaquil, even though both cities are close to the equator?

3. How does the ocean affect temperatures in the coastal Chilean town compared with the inland town, and what work do some coastal residents do?

4. Why is latitude alone not enough to predict the climates of both Quito and the coastal Chilean town?

3 YOUR TURN

Your own words

Invent a town. In 4 to 5 sentences, choose its latitude, elevation, and distance from a large body of water, then explain how each choice could affect its climate and one human activity.

ANSWER KEY

Three Climate Clues

GRADE 6 · 6.C.2.3

PART 1 · READ AND MARK

Underline one climate effect in each paragraph, circle one human activity linked to it, and write 1 beside the latitude explanation, 2 beside the elevation explanation, and 3 beside the nearby-water explanation. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	How does being farther from the equator affect the southern market's climate and farmers' planting plans?	**Farther from the equator, winters are cooler and the warm season is shorter, so farmers plan planting around that shorter season.**
2	Why might the family need a jacket in Quito but not in Guayaquil, even though both cities are close to the equator?	**Quito is at a higher elevation, where air temperatures are generally cooler.**
3	How does the ocean affect temperatures in the coastal Chilean town compared with the inland town, and what work do some coastal residents do?	**The ocean softens summer heat and winter cold near the coast. Some coastal residents fish for work.**
4	Why is latitude alone not enough to predict the climates of both Quito and the coastal Chilean town?	**Quito's high elevation makes it cooler than a low city at a similar latitude. The ocean makes temperatures near the Chilean coast less extreme than those farther inland at a similar latitude.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

My invented town sits near the equator on a high plateau beside a large lake. Its latitude brings fairly steady sunlight through the year, but its high elevation keeps the air cooler than on nearby low plains. The lake warms and cools slowly, which can make temperatures by its shore less extreme. Residents grow flowers for sale, choosing kinds that can handle cool nights.

Accept answers that correctly connect each factor to a climate effect and a plausible human activity. For the open task, the three factors may work together or offset one another.