Name _____ Class _____ Date _____

East Africa

GEOGRAPHY

Along the Great Rift

In this reading the author describes the varied geography of Africa's Great Rift. He compares its geography in Kenya to the conditions it has created farther north in the Horn of Africa.

The road has risen swiftly as we leave Nakuru, a town that sits south of the Equator in Kenya. Now, as we drive beneath cool gray rain clouds, we pass the lush tea plantations of Kenya's colonial past. Abruptly the clouds break, and before our windshield the red earth drops away. A gash 700 meters (2,300 feet) deep and 16 kilometers (ten miles) across—an offshoot of Africa's Great Rift—lies before us. Far to the left, stretching beyond the horizon, I see a glimmering expanse of water—Lake Victoria. . . .

Visitors to Kenya know the rift as the breathtaking escarpments [cliffs] they pass on safari. Few realize it is actually an immense series of cracks in the face of the continent that runs 5,600 kilometers [3,500 miles], from the Red Sea south to Mozambique. Enormous troughs—in places 90 kilometers [56 miles] across and nearly 2 kilometers [1.25 miles] deep—have formed along those cracks.

Here in central Africa the rift has two branches. The eastern bisects [divides] Kenya and skirts both Kilimanjaro and the Senengeti Plain in Tanzania. The western rift cleaves [splits] the heart of Africa, cupping a great chain of lakes. The rifting earth . . . stokes [stirs up] the volcanic fires of the Virunga Mountains, home to the endangered mountain gorilla. Lake Victoria sits atop a plateau between the two branches.

Rifting also generated the highlands of Ethiopia and the Afar desert. It was there I began my journey. How different the shriveling lake known as Assal [in the Afar desert] is from Victoria. As different as the cool Kenya Highlands are from the hellish, brooding landscape we are traversing [crossing] here in Djibouti, a tiny . . . country in the Horn of Africa. Djibouti guards the channel between the Red Sea and the Gulf of Aden.

We leave the capital, Djibouti, at dawn. The humid air is already 37°C (100°F). . . . The land is harsh beyond belief: Even withered thornbushes struggle to survive on black lava ridges. Why am I here, I wonder, as the heat sears [burns] my nostrils. Because, I tell myself, this is where the East African Rift System begins. . . .

Our trip to Lake Assal offers a rare glimpse of earth's crust being formed. We meet Bruce Kinser, a[n] oil driller from East Texas, at a government geothermal project outside Djibouti. Steam roars deafeningly through a well that may one day provide electric power for the country.

"The earth steams here because magma is so close to the surface," he says. "Seawater from the Gulf of Aden leaks down, then boils up through vents." The earth's crust here is thin—perhaps only 25 kilometers [about 16 miles] thick.

In Kinser's truck we bounce down a valley strewn with boulders toward Lake Assal, 156 meters [511 feet] below sea level. As we drive along the tortured black cliffs, Kinser says, pointing to a congealed [hardened] flow of lava, "This land's only ten years old." . . . We pause by a long black fissure [crack]. [In 1978] 800 earthquakes shook this area. Then several square miles of lava oozed forth. . . .

Far below us, nearly smothered in desert haze, lies Lake Assal. . . . We reach the water's edge, and the depression [low place] has become a furnace. My thermometer, good for 50°C (135°F) has gone off its scale. The heat bakes us on all sides, so evenly that I cannot tell where the sun is without looking.

Lake Assal can exist in such fierce heat only because seawater constantly percolates [filters] into the depression. Evaporating rapidly, it leaves salt everywhere. In the clear shallows it drifts like fine snow. Salt cauliflowers knobble [cover like round stones] the shoreline.

For centuries these deposits have drawn the Afar nomads. They pile their camels high with salt, which they then sell to the tribes of the Ethiopian Highlands to the south.

Understanding What You Read After you have finished reading the selection, answer the following questions.

1. What is the Great Rift and where is it located?

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2. How are the location and geography of Lake Victoria and Lake Assal different?

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3. Why do you think it is hotter near Lake Assal than at other places in the Afar desert?

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Activity

Find out how the width and depth of the Great Rift's troughs compare to the width and depth of Arizona's Grand Canyon. Write a paragraph to report your findings.