

Physical Regions of Africa

The Atlas Mountains, located in the far northwest, are the longest mountain range in Africa. They create a rain shadow, where the inland side of the Atlas Mountains experience much less rain than the ocean side.

The Sahara Desert is the largest desert in the world. It covers 3,500,000 square miles of northern Africa. The Sahara Desert is made up of different types of land surfaces: *ergs*, (windblown sand dunes); *wadis* (dry streambeds); gravel plains; *hammadas* (rocky plateaus); and mountains.

South of the Sahara is the Sahel which is a steppe area with small trees and grasses. The Sahel is a fragile land, resting between true desert and savanna. The Sahel has been gradually turning into desert due to years of drought, overgrazing and poor land management.

The savannas of Africa are tropical grasslands with scattered trees. Savannas have definite wet and dry seasons. Many of Africa's animals live in this region. Savanna land preserves have been set up to help protect the animals from poachers. The savanna belts of Africa are located both north and south of the tropical rainforest region of central Africa.

The tropical rainforests are located near the equator. Treetops of the rain forest form a canopy, or an umbrella-like cover of vegetation. The canopy lets very little sun light filter to the ground. Because of the lack of sunlight, the forest floor has very little plant life. Over 750 different types of trees live in the rainforest. The rainforest is being cut down for its precious wood.

The Congo River (once known as the Zaire River) flows 2,900 miles through central Africa, and much of its course flows through the dense tropical rainforest.

The Great Rift Valley (also called the East African Rift) is located in Eastern Africa. The Rift Valley is more than 3,000 miles long. Movement of the earth's crustal plates is slowly splitting Africa into two parts, at the rate of millimeters per year. If this spreading continues, millions of years in the future, the Red Sea will gradually expand southward into the Great Rift Valley. But for now, crustal spreading forms deep valleys that are filled with deep lakes. Volcanoes in the area help preserve fossils of the oldest known remains of early humans. At the northern end of the Great Rift Valley, lies the Ethiopian Highlands, a rugged mountainous region with high plateaus.

The Nile River is 4,160 miles long and is the world's longest river, starting in the highlands around Lake Victoria in Uganda. It flows north to form a major delta at its mouth, the Mediterranean Sea. The ancient Egyptian civilization once flourished along the banks of the Nile.

Southern Africa hosts two deserts that are much smaller than the Sahara: the coastal Namib Desert and the inland Kalahari Desert. In the summer, these deserts have temperatures that can reach 120 degrees Fahrenheit during the day and from 50 degrees Fahrenheit or lower at night. These deserts have cactus-like plants that store moisture and shrubs scattered throughout. The Drakensberg Mountains are located near the southeastern coast of South Africa. Many peaks in this range tower over 10,000 feet in elevation.

Writing Prompt for Causes and Effects of Desertification

You are a journalist writing for a news magazine (such as *National Geographic* or *Time*). Your editor has asked you to write a feature article on the importance of preserving the Sahel:

- 1) explaining at least 3 causes and effects of desertification and
- 2) describing 5 possible solutions for preventing or reversing desertification.

Causes of Desertification	Effects

What can be done? 5 possible solutions for preventing or reversing desertification.

- 1.
- 2.
- 3.
- 4.
- 5.

Desertification Essay Rubric (Ideas and Content)

6

The writing is exceptionally clear, focused and interesting. It holds the reader's attention throughout. Main ideas stand out and are developed by strong support and contain rich details suitable to audience and purpose. The writing is characterized by:

- Clarity, focus, and control
- Main ideas that stand out
- Supporting, relevant, carefully selected details; when appropriate, use of resources provides strong, accurate, credible support
- A thorough, balanced, in-depth explanation/exploration of the topic; the writing makes connections and shares insights
- Content and selected details that are well suited to audience and purpose
- 3 crystal-clear cause & effect sequences explaining desertification
- 5 fully developed solutions for desertification

5

The writing is clear, focused, and interesting. It holds the reader's attention. Main ideas stand out and are

developed by supporting details suitable to audience and purpose. The writing is characterized by:

- Clarity, focus, and control
- Main ideas that stand out
- Supporting, relevant, carefully selected details; when appropriate, use of resources provides strong, accurate, credible support
- A thorough, balanced explanation/exploration of the topic; the writing makes connections and shares insights
- Content and selected details that are well suited to audience and purpose
- 3 strong cause & effect sequences explaining desertification
- 5 adequately developed solutions for desertification

4

The writing is clear and focused. The reader can easily understand the main idea. Support is present, although it may be limited or rather general. The writing is characterized by:

- An easily identifiable purpose
- Main ideas that are clear
- Supporting details that are relevant, but may be overly general or limited in places; when appropriate, resources are used to provide accurate support
- A topic that is explored/explained, although developmental details may occasionally be out of balance with the main idea(s); some connections and insights may be present
- Content and selected details that are relevant, but perhaps not consistently well chosen for audience and purpose
- 3 adequate cause & effect sequences explaining desertification
- 4 adequately developed solutions for desertification

3

The reader can understand the main ideas, although they may be overly broad or simplistic, and the results may not be effective. Supporting detail is often limited, unsubstantial, overly general, or occasionally off-topic. The writing is characterized by:

- An easily identifiable purpose and main ideas
- Predictable or overly obvious main ideas; conclusions or main points seem to echo observations heard elsewhere
- Support that is attempted but developmental details are often limited, uneven, somewhat off-topic, predictable, or overly general

- Details that may not be well grounded in credible resources; they may be based on clichés, stereotypes or questionable sources of information
- Difficulties when moving from general observations to specifics
- 2 adequate cause & effect sequences explaining desertification
- 3 adequately developed solutions for desertification

2

Main ideas and purpose are somewhat unclear or development is attempted but minimal. The writing is characterized by:

- A purpose and main ideas that may require extensive inferences by the reader
- Minimal development or insufficient details
- Irrelevant details that clutter the text
- Extensive repetition of detail
- One adequate cause and effect sequence explaining desertification
- 2 adequately developed solutions for desertification

1

The writing lacks a central idea or purpose. The writing is characterized by:

- Ideas that are extremely limited or simply unclear
- Attempts at development that are minimal or nonexistent; the paper is too short to demonstrate the development of an idea
- One partially developed cause and effect sequence explaining desertification
- 2 partially developed solutions for desertification

Desertification True/False Quiz

Name _____

- _____ 1. The Sahel is the grassland between the Sahara Desert and the savanna.
- _____ 2. The Sahel is made up of grasses, shrubs, and forests.
- _____ 3. Due to rapid population growth and drought, the vegetation of the Sahel is being damaged by overgrazing.
- _____ 4. Overgrazing happens when nomads have too many animals on a piece of land for too long.
- _____ 5. Cutting down trees and shrubs for fuel causes desertification.
- _____ 6. Water management and land use practices do not give us any information about people on the Sahel.
- _____ 7. Where there is a lot of wind, people can cover the sand with large boulders or oil to keep the sand from blowing away.
- _____ 8. Plants cannot be irrigated and grown at the base of sand dunes.
- _____ 9. Land can be improved by being careful with the water and salt levels.
- _____ 1. Desertification includes natural processes and humans.

Desertification True/False Quiz **ANSWER KEY**

 T 1. The Sahel is the grassland between the Sahara Desert and the savanna.

 T 2. The Sahel is made up of grasses, shrubs, and forests.

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 T 4. Overgrazing happens when nomads have too many animals on a piece of land for too long.

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 F 6. Water management and land use practices do not give us any information about people on the Sahel.

 T 7. Where there is a lot of wind, people can cover the sand with large boulders or oil to keep the sand from blowing away.

 F 8. Plants cannot be irrigated and grown at the base of sand dunes.

 T 9. Land can be improved by being careful with the water and salt levels.

 T 1. Desertification includes natural processes and humans.

Desertification

I'm desertification and I here to say
I may be dry and that's okay
Every year I receive less than 10 inches of rain
I am spreading into the Sahel and there I will remain.

Sahara, Grasslands, Sahel, too!
Watch me spread, Boogaloo!

I'm desertification and try as you might
You can not stop me to my delight
Erosion of the topsoil will cause you to pause
But, drought and overgrazing will hurt my cause

Top soil, erosion, drought, too!
Overgrazing of the animals, Boogaloo!

I'm desertification and you can see
Many scientists are always trying to stop me
Crop rotation, large boulders keep the sand compact
Water management and land use practices are beginning to impact

Scientists, crop rotation, large boulders, too!
Plants can be grown at the base of sand dunes, Boogaloo!

Sahel

Is this the Sahel

Yes Ma'am

Is this the Sahel

Yes Ma'am

How do you know?

The Sahel is the steppe grassland region south of the Sahara Desert.

What is happening

The Sahel is slowly disappearing.

How did this happen?

The nomads are overgrazing their animals on the grasslands.

Tell me more?

There has been a drought for many years.

What else has happened?

Wind has caused the soil to erode.

How do you know?

The topsoil (the nutrient-rich layer of the soil that helps plants grow) is gone.

Then what happens?

The desert is slowly spreading into the grassland.

What is that called?

Desertification!

Is this the Sahel?

Yes Ma'am

Is this the Sahel?

Yes Ma'am