

## SECTION

## 1

A GEOGRAPHICAL  
AND HISTORICAL  
SKETCH OF AFRICA

# IDENTITY SIGNIFICANCE AND PURPOSE

## A Geographical and Historical Sketch of Africa

### Learning Indicators

- Describe the major geographic features and ecosystems of Africa, e.g. rivers, deserts, mountains, coastlines, and vegetation.
- Analyse how geographical features and ecosystems influenced the development of agriculture, trade networks and settlement patterns in early African societies.
- Analyse how climate change influenced the movements and adaptations of early African populations, such as the transition from nomadic hunter-gatherer lifestyles to settled agricultural communities.

### Key Ideas

- The ancient African continent had a lot of geographical features which include deserts, savannah, swamps, rainforests, plateaus, mountains, rivers, lakes, valleys, and highlands.
- The Nile River played a crucial role in supporting ancient Egyptian civilisation while the Congo River facilitated trade and communication. The Sahara Desert shaped Sahara societies around the oases.
- The ways of life of our great-grandmothers and fathers were influenced and shaped by their geographical features and climate change.

## INTRODUCTION

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The ancient African continent had a lot of geographical features and ecosystems which supported agriculture and the people. The highlands provided different agro-ecological conditions and supported the cultivation of a variety of crops. These geographical conditions brought about a transition from hunter-gatherer societies to settled agricultural communities. Factors such as high population growth and climate change affected food security among ancient Africans. Sadly, these same problems are causing threats to the survival of the modern African. We need to understand how important these geographical features and resources are to our survival as Africans and the need to protect them.

## THE KEY GEOGRAPHICAL FEATURES OF AFRICA

This sub-strand talks about the geographical features of Africa. Let us do a little exercise.

- Write all the physical things in your surrounding that were created by nature.

List your observation here

If you have written things such as trees, rivers, mountains, animals, the sea, forests and grasslands then you are close to right. The African continent is blessed with so many physical features like deserts, savannahs, islands, swamps, rainforests, plateaus, mountains, rivers, lakes, valleys, and highlands. These physical features are what we refer to as the geographical features of Africa.



**Fig 1.1** Physical Map of Africa

This map describes the physical features of Africa. It shows the different land regions you can find in Africa.

Now, before we go on to look at the geographical features of ancient Africa, we would like to remind ourselves of some geographical features of Ghana. Do you remember any of these features from JHS? If you do, Good! If no, come along with us.

The geographical features of Ghana include the sea (Cape Three Points), rivers, (Pra, Ankobrah, Tano, Volta, Densu, Oti, Bia, etc.), mountains (Akwapim-Togo Range,

Gambaga Escarpment, Mampong Scarp, Afadja, etc.), and vegetation (savannah, forest, coastal).

### Activity 1.1

- a. Write five (5) geographical features in your community. To challenge yourself, consider how this helps or hinders your community.

Feature	Does it help your community?	Does it hinder your community?

**Table 1**

- b. Use the map of Ghana below and indicate two (2) geographical features. You might need to ask your teachers or those around you for help!



**Activity Figure 1**

Let us take time and describe some geographical features of Africa. Our continent is blessed with a lot of rivers, highlands, valleys, deserts, rainforests, islands, and oceans. Examples of them are the Nile River, the Sahara Desert, the Ethiopian Highlands, the Great Rift Valley, the Namib Desert, the Congo Basin (forest) and the Madagascar Island. In this section, we are going to discuss the first four examples, namely the Nile River, the Sahara Desert, the Ethiopian Highlands, and the Great Rift Valley.

## Nile River

The Nile River is the longest in the world and can be found in Africa. It flows through eleven countries in Africa which are Egypt, Ethiopia, Kenya, Burundi, Tanzania, Rwanda, Uganda, Sudan, South Sudan, the Democratic Republic of Congo, and Eritrea. The Nile played a very vital role in the development of ancient civilisations and continues to be useful to millions of people living along its banks on the continent.

It is the longest river in the world, flowing northward through northeastern Africa for about 6,650 kilometres (4,130 miles). It passes through countries like Uganda, Sudan, and Egypt before emptying into the Mediterranean Sea. The Nile has been vital to the civilizations that developed along its banks, providing water for irrigation, transport, and agriculture. Ancient Egypt, for example, flourished because of the Nile, which made the desert land fertile and allowed for the growth of crops like wheat and barley.

Ancient Egyptians relied on the annual flooding of the Nile, called the inundation, which deposited nutrient-rich silt onto their farmlands, making it possible to grow enough food to support large cities.



**Fig 1.2** The Nile River flowing through different countries

## Sahara Desert

The Sahara is the largest hot desert in the world, stretching across North Africa. It consists of vast stretches of dunes, rocky plateaus, and oases. It spans across parts of Algeria, Chad, Egypt, Libya, Mali, Mauritania, Morocco, Niger, Sudan, and Tunisia. Despite the harsh conditions in this area, it supports different plant and animal lives. The plant life includes drought-resistant species such as acacias, palms, and succulents; while animal species include camels, desert foxes, Fennec foxes, gazelles, various reptiles, and insects.



**Fig 1.3** Some animals in the Sahara Desert



**Fig 1.4** People travelling on the Sahara Desert

## The Ethiopian Highlands

This is also known as the Ethiopian Plateau. They are a vast mountainous region located in the Horn of Africa (Somalia Peninsula) within the borders of Ethiopia, but also stretching into parts of Eritrea and Sudan. It is made of steep cliffs, deep valleys, and big plateaus.



**Fig 1.5** The Ethiopian Highlands

## The Great Rift Valley

The Great Rift Valley is a big geographical feature that covers 6000km from the Middle East to East Africa. It is one of the most unique geographic formations on Earth with unique geological trenches, rifts, and faults. It has rich biodiversity made up of montane forests, savannah grasslands, wetlands, and freshwater lakes as well as, diverse endemic species and important wildlife habitats.

This is a fascinating geographical feature that spans multiple countries in Africa. In Kenya, it is home to Lake Nakuru, which is famous for its vast flocks of flamingos and diverse wildlife. The surrounding escarpments (long steep slopes at the edge of a plateau) also offer breathtaking views for tourists and hikers. The Great Rift Valley is a prime example of the breathtaking landscapes and natural wonders created by tectonic plate movements.



**Fig 1.6** The Great Rift Valley

There are more mountains, rivers, islands, and deserts we did not touch on. So, you must read about them. They include the Congo River, Kalahari Desert, Mountain Kilimanjaro, and Madagascar Island.



# GEOGRAPHIC FEATURES AND ECOSYSTEMS

## Geographic Features That Influenced Ancient Africans

### Kalahari Desert

this is a vast semi-arid sandy savanna that stretches across Botswana, Namibia, and South Africa. Unlike typical deserts, the Kalahari receives some rainfall, allowing for more vegetation than in extremely deserts. It is the home to various wildlife, such as meerkats, giraffes and lions. The San people, also known as the Bushmen, have lived in the Kalahari for thousands of years, adapting to its harsh environment by practicing hunting and gathering. The Kalahari's Okavango Delta, in the Kalahari Desert, is a seasonal swamp which supports diverse wildlife during the rainy season. This makes it an important area for conservation and tourism.



Fig 1.7 A picture showing the Kalahari Desert

### Sahara Desert

This is the largest hot desert in the world, covering much of North Africa, including Algeria, Egypt, Libya, and Morocco. Its vast dunes, rocky plateaus and extreme temperatures make it a challenging environment. Despite the harsh conditions, several oases support life, allowing plants and animals like camels, scorpions, and date palms to survive. Historically, the Sahara has been a major trade route, where camel caravans transported goods like salt, gold, and spices. The ancient city of Timbuktu in Mali was a key trade centre on the edge of the Sahara, connecting West Africa with Mediterranean markets.

## Mountain Kilimanjaro

It is the tallest mountain in Africa, standing at 5,895 meters (19,341 feet) above sea level. Located in Tanzania, it is a free-standing volcanic mountain with three cones: Kibo, Mawenzi, and Shira. The mountain is a popular destination for hikers and climbers due to its snow-capped peak, even though it is near the equator. The mountain's slopes support different ecosystems, ranging from tropical rainforests to alpine deserts, and are home to animals such as elephants, leopards, and colobus monkeys. Kilimanjaro's melting glaciers are a major concern, as they have been shrinking due to climate change. The ice cap that once covered its peak may disappear entirely within the next few decades.



**Fig 1.8** picture showing Mountain Kilimanjaro

## Ecosystems That Influenced Ancient Africans

### Savannas

Savannas are grassy plains with scattered trees and shrubs. These ecosystems are often found in Africa, and they support a wide variety of wildlife. The open grasslands provide food for herbivores like zebras and giraffes, while predators like lions hunt them for survival. Savannas also experience wet and dry seasons. For example, tall grass where elephants roam freely and graze on vegetation, and lions crouch low, waiting to pounce on a herd of gazelles.

### Rainforests

Rainforests are like nature's bustling metropolises, with a diverse array of flora and fauna coexisting in a harmonious ecosystem. The African rainforest, such as the Congo Basin, is akin to a treasure trove of life, teeming with majestic gorillas, playful chimpanzees, and a colourful variety of birds. Just like bustling cities, rainforests never sleep; they are constantly producing oxygen, absorbing carbon dioxide, and regulating

the Earth's climate, much like the intricate systems that keep a city functioning smoothly. Picture a dense, green cityscape where towering trees reach for the sky, and the symphony of birdcalls fill the air, while acrobatic chimpanzees swing from branch to branch like urban dwellers navigating their bustling environment.



**Fig 1.9** A picture showing rainforest

## Mangroves

Mangroves are coastal ecosystems made up of trees that can grow in salty water. These trees have special roots that help stabilise the coastline and protect it from erosion caused by waves. It also serves as a nursery for many fish species and is home to crabs, birds, and other marine life. Imagine walking along the coast and seeing a cluster of trees standing in shallow water with their roots sticking out like stilts, providing shelter to fish and preventing the waves from washing away the land.



**Fig 1.10** A picture showing mangrove

## Wetlands

Wetlands are areas where water covers the soil, either permanently or seasonally. These ecosystems are rich in biodiversity and provide habitats for animals like hippos, crocodiles, and countless bird species. Wetlands also act as natural water filters, cleaning the water and supporting a variety of plant and animal life.

For example, think of a marshy area with tall reeds, where you can spot hippos wading in the water and birds flying overhead, while crocodiles bask on the muddy banks. This scene illustrates the diverse and vibrant ecosystem that wetlands can provide.



**Fig 1.11** picture showing Wetland

### Activity 1.2

- a.** Look at the map of Africa and indicate its geographical features.



**Activity Figure 2**

- b.** Look at the above map of Africa and locate the following:
- i.** Nile River
  - ii.** Sahara Desert
  - iii.** Ethiopian Highlands
- c.** Research the following key geographical features and add them to your map:
- i.** Congo River
  - ii.** Kalahari Desert
  - iii.** Kilimanjaro
  - iv.** Madagascar
- d.** Discuss the following with your friends:
- i.** Think about the map of Africa. How have the different geographical features affected how different countries have grown over time?
  - ii.** How different are the regions today? How could geography affect this?
  - iii.** Share your ideas with the rest of the class.

**Use the box below to record your finding from the discussion.**

Notes from discussion

**Table 2**

## HOW GEOGRAPHICAL FEATURES AND ECOSYSTEMS INFLUENCED ANCIENT AFRICAN SOCIETIES

As discussed earlier, the ancient African was surrounded by many influential geographical features. Their social organisation and ways of life, including where they settled, the type of buildings put up, their mode of dressing, their food and even their occupations, were influenced by their geographical features. What is the name of your community or town? Why did your great-grandparents settle there? Was it the presence of water or food? Was it for security purposes or for fertile land?

Just as some of these factors influenced our great-grandparents to settle in our hometowns, so did the geographical features and ecosystems of Africa influence and shape ancient African societies. Let us now take time to discuss how these geographical features influenced them.

## Promotion of Agriculture

The rich forests and valleys provided the ancient African with fertile lands for farming. For example, the Nile River Valley provided fertile land for agriculture. Ancient Egyptian civilisation flourished along the Nile due to its ability to support agriculture and sustain settlements. Similarly, the Niger River Valley in West Africa supported civilisations like the Mali and Songhai Empires due to its fertile soils and access to water.

The rich biodiversity of Africa supported the domestication of plants and animals that led to the development of agricultural societies. Again, crops like sorghum, millet, and yams were domesticated in various regions of Africa leading to the growth of societies.



**Fig 1.12** Men fishing



**Fig 1.13** A woman farming

## Promotion of Trade

The large deserts and coastlines promoted trade among Africans. Since there were different natural resources in ancient Africa, there was the need for the exchange of goods and services. The coastlines and the deserts provided access routes for the people to transport goods like slaves, textiles, gold, ivory, and salt from the north to sub-Saharan and from sub-Saharan to the north.

The coastlines also promoted maritime trade and interaction with other civilisations, such as the Phoenicians, Greeks, and Romans. For instance, the Swahili Coast served as a vital link connecting Africa to Indian Ocean Trade. Coastal cities like Kilwa succeeded through trade and cultural exchange.



**Fig 1.14** A market scene in ancient Africa

## Migration

The ancient African societies experienced a lot of climate change. This led to movement from their original homes to their present settlements. Thus, climatic changes like lengthy periods of drought and rainfall influenced ancient African settlement patterns.



**Fig 1.15** A family moving to a new settlement

## Human Settlements

Geographical features provided a safe and comfortable environment for human settlements. The Great Rift Valley was ideal for human settlement due to its fertile soils, water resources, and diverse ecosystems for farming, fishing, pastoralism, and trade. Areas like the Nile Delta offered rich soil for agriculture, which supported larger populations and led to the growth of settlements. The rivers and lakes provided fresh water for drinking, farming, and fishing which were essential for sustaining life. Mountainous regions like the Ethiopian Highlands, for instance, provided shelter to the Axum people and later served as a centre for the spread of Christianity.

## Provision of Security

Another area where geographical features shaped the lives of ancient Africans was in the provision of security. The mountains and plateaus provided natural barriers that protected the ancient communities against invasions from enemies. The cooler climate in the highlands also protected the people against diseases like malaria since mosquitoes do not thrive in cold climate. This eventually promoted healthy living conditions which contributed to the security of the ancient communities.

## Provision of Biodiversity and Natural Resources

Africa's diverse ecosystems provided valuable resources for ancient societies, including timber, minerals, and wildlife. The presence of mineral resources like gold and iron ore led to the development of mining and trade, which attracted people to settle nearby. Again, the exploitation of these resources often shaped economic and political systems, as seen in the gold trade of the ancient Kingdom of Ghana or the ivory trade in East Africa.

### Activity 1.3

Complete the table below and analyse how geographical features have shaped Africa's trade and habitation patterns.



Aspect of development	Geographical feature that is most important	How has this geographical feature helped this aspect of Africa to develop?
Promotion of agriculture		
Promotion of trade		
Migration		
Human settlements		
Provision of security		
Provision of biodiversity and natural resources		

Table 3

### Activity 1.4

Consult the elders in your community and find out how the geographical features and ecosystems influence the lives of people in your community. Use it to write a report on the benefits of the geographical features in your community.

Make sure you think about the following in your report:

- What geographical features are there in your community?
- Have they provided a help or been a barrier over time?
- Has technology helped to change this?
- Have things improved or worsened for your community?
- What measures do your elders think could help limit the impact of climate change for future generations?

## INFLUENCE OF CLIMATE CHANGE ON THE MOVEMENT AND ADAPTATIONS OF EARLY AFRICAN POPULATIONS

Due to population increase and natural disasters, the ancient African societies experienced major changes. These climatic conditions negatively affected African societies, leading to movements and adaptation.

Below are some of the climatic conditions that prevailed in ancient African societies.

### Unpredictable Rainfall

One climatic condition that affected ancient Africans was unpredictable rainfall. As a result of the changes in rainfall patterns, there were seasons when the people experienced enough rainfall and in other times, they experienced less rainfall. When there was enough rainfall, there was abundance of food and during less rainfall seasons, there was famine. To survive, the ancient African adopted irrigation systems to ensure all-year farming to produce food for their families while those living in the Sahel (Sahara Desert) regions also adopted nomadic lifestyles and moved their livestock to other places in search for pasture (feed).

#### Case Study: The impact of unpredictable rainfall on the Nok culture

Unpredictable rainfall had significant and multifaceted impact on the Nok Culture; an early Iron Age society in West Africa (circa 1000 BC to 300 AD).

##### 1. Agricultural challenges

The Nok people practised both agriculture and animal husbandry. Unpredictable rainfall made it difficult to plan the agricultural calendar, affecting planting and harvesting seasons. Poor yields from crops due to erratic rainfall led to food shortages. Archaeological evidence indicated that the Nok adapted farming techniques to cope with varying climatic conditions, using features like raised fields and terracing to manage water more effectively.

##### 2. Increased food insecurity

Unpredictable rainfall patterns could lead to alternating periods of drought and floods, both of which are detrimental to food production. This inconsistency could result in food insecurity, pushing communities to seek other means of sustenance or migrate to more stable environments. Pottery and storage structures excavated suggest efforts to store surplus food, indicating attempts to mitigate the impact of unpredictable climatic conditions.

### 3. Social and technological adaptations

Societies often responded to environmental variability by developing new social structures and technologies. For the Nok, this included advances in iron smelting used to create agricultural tools that improved farming yields, despite inconsistent rainfall. The Nok are renowned for their terracotta sculptures and early ironworks. A sophisticated society of technological innovation and adaptation.

### 4. Trade and economic diversification

To counteract the impact of unreliable agriculture, the Nok might have engaged in trade with neighbouring regions. Trade of items like iron tools, pottery, and sculptures would help ensure economic stability even when agricultural production was low. Finds of Nok artefacts beyond their core area indicate they had trade connections, allowing them to exchange goods and resources as a buffer against local environmental stresses.

### 5. Cultural and religious practices

The uncertainty of rainfall influenced the cultural and religious practices of the Nok people. Rituals and offerings to deities or ancestors might have been aimed at ensuring more predictable weather and good harvests. We can make these inferences from Nok terracotta figures that often depict human and animal forms that could have had religious or ceremonial significance, related to fertility and agricultural productivity.

The Nok culture's responses to unpredictable rainfall demonstrate their resilience and adaptability. This adaptability is a testament to the ingenuity of early African societies in the face of environmental uncertainties.

## Desertification

One of the environmental threats to ancient Africa, especially in the Sahel Regions, was desertification. This was caused by factors like overgrazing, deforestation, and climate change. Desertification led to the expansion of desert areas and loss of fertile land. This led to poverty and food insecurity in the Sahel regions. The expansion of the Sahara Desert over time forced the people to migrate towards the south. This movement influenced cultural exchanges, trade routes and the spread of knowledge. The nomadic groups developed measures to survive in arid regions such as hunting, livestock, and utilising the oases.

### Case Study: The impact of desertification in the Sahel

#### 1. Migration and settlement patterns

As fertile land diminished due to the encroaching desert, communities in the Sahel were forced to move further south to seek more hospitable climates for

agriculture. This migration shaped the socio-political dynamics of the region and led to complex interactions and sometimes conflicts between different ethnic and cultural groups.

## 2. Agricultural practices

The changing environment required adaptations in agricultural practices. With less reliable rainfall, communities turned to more resilient crops and began to develop and enhance irrigation techniques to cope with harsher conditions.

## 3. Development of trade networks

The increasing aridity made nomadic pastoralism a more viable lifestyle for many, leading to the development of trans-Saharan trade routes. These routes became vital for the exchange of goods like salt, gold, ivory, and slaves.

## 4. Socio-political organisation

The environmental stresses brought by desertification influenced the formation of powerful empires and kingdoms in West Africa, such as the Ghana, Mali, and Songhai empires. Their wealth and power were linked to their ability to adapt to the challenging conditions of the Sahel.

*An example of the impact in a specific location: Ghana Empire*

*The Ghana Empire (circa 300 to 1100 CE), located in what is known today as South-eastern Mauritania and western Mali, is a prime example of how societies adapted to and were affected by the desertification of the Sahel. This empire's prosperity was partly based on its control of trade routes that facilitated the exchange of gold from the south and salt from the Sahara.*

## 5. Cultural and social adjustments

Communities in the Sahel adopted various strategies to cope with the changing environment by going into trade and herding. These adjustments influenced social structures, roles, and cultural practices, shaping the identity and heritage of Sahelian societies over centuries.

Desertification played a critical role in shaping the historical narrative of the Sahel, influencing migration patterns, economic strategies, and the rise and fall of empires.

## Drought

Drought was another climatic condition that influenced the movement of the ancient African. The long absence of rainfall led to the drying up of water bodies, the destruction of vegetation, and loss of human and animal lives. To survive, some of the people migrated from their original homes to other geographical areas. Some also invented complex tools like axes to farm while others invented bows and arrows for hunting. Some migrated and settled along the sea and rivers and engaged in fishing.

## Case Study: The impact of drought on Great Zimbabwe

A prominent example of the impact of drought can be found in the history of the Great Zimbabwean civilisation (1100 to 1450 AD).

### 1. Agricultural decline

The economy of Great Zimbabwe was based on agriculture and cattle herding. Prolonged drought periods led to failed crops and reduced pastureland for cattle, thereby depleting food resources. Archaeological studies suggest shifts in settlement patterns and reductions in livestock numbers during periods of drought.

### 2. Economic consequences

Droughts affected the kingdom's economy, which was also bolstered by trade in gold and ivory. Reduced agricultural output meant there were fewer surplus goods to trade. Some scholars believe climatic stress contributed to economic decline, impacting trade with Swahili city-states and other trading partners on the Indian Ocean coast.

### 3. Migration and social disruption

Severe droughts might have prompted migrations as people searched for more fertile lands, leading to social disruption. Such movements could have caused conflicts over territory and resources with neighbouring groups. The historical evidence for this is the patterns of abandoned settlements found by archaeologists that suggest communities moved in response to environmental stress.

The example of Great Zimbabwe illustrates how drought can severely impact an early African society, affecting agriculture, economy, migration patterns, social stability, and political authority.

## Floods

The ancient African societies suffered floods. This caused destruction of vegetation, outbreak of diseases, displacement of people and famine. Some of the people migrated to the highlands for safety whilst others used their knowledge to construct dams to collect excess water for irrigation.



**Fig 1.16** Flooding of the Nile River

## Case Study: The impact of the flooding patterns of the Nile River in ancient Egypt

During the Old Kingdom (2686-2181BC), particularly during the reigns of Pharaohs like Khufu (Cheops), the prosperity brought by good floods enabled the concentration of resources necessary for large-scale constructions like the Great Pyramid of Giza. The regular annual floods replenished the soil's nutrients, allowing for the cultivation of staples like wheat and barley.

### Positive effects

#### 1. Agricultural sustenance

Annual floods deposited nutrient-rich silt along the riverbanks, making the lands highly fertile and perfect for growing crops essential to sustenance and economic prosperity.

#### 2. Economic stability and growth

The flooding, when favourable, allowed for planning and development of irrigation systems like canals and basins to maximise agricultural output, which supported crafts, trade, and other economic activities.

#### 3. Cultural and religious influence

The Nile's flooding was so significant to Egyptian life that it was personified in the god Hapi, who was revered as the god of inundation. Offerings were made to Hapi in hopes of ensuring a good flood.

#### 4. Political stability

The people were able to use their irrigation systems to provide a stable food supply which inadvertently influenced population growth and contributed to their ability to build economic stability. This led to advancements in administration, arts, sciences, and more.

When the flooding changed, it led to greater instability as seen in the First Intermediate Period (2181-2055BC).

### 1. Famine and food shortage

In the years the Nile did not flood sufficiently, it led to severe reductions in agricultural output since the fields depended on the floodwaters for irrigation. This resulted in widespread famine and hardship.

### 2. Economic decline

Insufficient flooding lowered agricultural productivity, reducing the surplus that could be traded or stored for future use. This destabilised the economy, which was heavily reliant on consistent agricultural yields for prosperity.

### 3. Social unrest and political instability

The pressure from reduced food supplies and economic hardship often led to social unrest. Historical records suggest that such periods were accompanied by increased crime rates, social rebellions, and even the collapse of central authority.

### 4. Administrative challenges

Egyptian officials, tasked with managing the storage and distribution of grain, faced difficulties during adverse flooding. This often led to challenges in governance and increased corruption or mismanagement, exacerbating the crisis.

The impact of the Nile's flooding on ancient Egypt was profound, echoing through every aspect of its civilisation. While beneficial floods contributed to periods of great prosperity and stability, adverse flooding events had the power to disrupt society fundamentally.

## Activity 1.5

Take a walk around your community and have discussions with your elders about your community's geographical features. What four things will you say to your elders to maintain the natural resources that are beneficial to your community?

Note your points in the table below:

Point to make to your elders	Specific evidence or example to support your argument	Justification of your point

### Activity 1.6

**Use the information from this week and last week to discuss the following:**

1. How could geographic features increase the impact climatic conditions would have on an area?
  - a. Would intense rainfall impact the Sahara region as heavily as it would Nile Delta? Why or why not?
  - b. How would changing climates lead to changes in trade patterns? Can you suggest some explanations?
  - c. How would changing climates lead to changes in population patterns? Can you suggest some explanations?

#### Notes to discussion

2. What concerns would people in the past have about changing climatic conditions? Would they be similar or different from the concerns we have today?

### Activity 1.7

Project work: Answer **one (1)** of these questions.



1. Write a short story to educate Ghanaians on the need to protect our geographical features.
2. Create an artwork that explains the effects of climate change to the geographical features of Ghana.
3. Design a game that will educate players on the importance of geographical features.

### Activity 1.8

1. Create a research project that looks at how climatic conditions changed early African societies. You can present your research project as a slideshow, a poster, a verbal presentation, or a written report. If you have access to the internet or other resources, use these to add further depth of detail to your work.

# Review Questions

1. Name three geographical features of Africa.
2. Name two geographical features of Ghana.
3. How did the Nile River impact the development of societies along its banks in a negative way?
4. How did the Nile River impact the development of societies along its banks in a positive way?
5. How did the Sahara Desert affect the human populations in ancient Africa?
6. What evidence do we have that suggests that climate change had an impact on Greater Zimbabwe?
7. What evidence do we have of changing trade patterns in the Nok culture?
8. In what four (4) ways did ancient African societies adapt to climate change?
9. What five (5) positive attitudes and values have you internalised from the way ancient Africans adapted to climate change?
10. How will you use three of such attitudes and values to adapt to climate change in your community?
11. How tall is Mount Kilimanjaro?
12. Why are wetlands important to the environment?
13. How do mangrove trees survive in salty water?
14. How do rainforests help regulate the Earth's temperature?
15. How do people and animals survive in the dry conditions of the Kalahari?

# Suggested Answers to Review Questions

1. The Nile, the Sahara Desert and the Sahel, the Great Lakes (Victoria etc), the Ethiopian Highlands, the Kalahari Desert, the Savannah zones.
2. Coastal region, Shai Hills, Volta River, Mount Afadjato.
3. Political destabilisation, food scarcity, rising prices, political corruption.
4. Plentiful food when flood patterns are stable, political centralisation, easy trade.
5. The Sahara Desert affected the people both positively and negatively.

## *Positive*

- a. It provided access routes to promote trade.
- b. The Sahara Desert was home to many nomadic people.
- c. The settlers had to adapt to the harsh climatic conditions in the desert that led to civilisation. Many communities relied on wells and other sources of groundwater to survive.
- d. The desert created barriers to transportation and communication which provided security to the people.

## *Negative*

- a. The surrounding conditions made it tough for human survival.
  - b. The harsh conditions led to loss of lives and property.
  - c. The desert created barriers to transportation and communication which delayed development.
6. Evidence has been found of abandoned villages and settlements.
  7. Various tools and material goods have been found which must have been traded with other cultures and areas.
  8. Four (4) ways by which the ancient African adapted to climate change:
    - a. Adopted migration
    - b. Dug wells to get water
    - c. Started farming
    - d. Started keeping livestock
    - e. Started hunting with some complex tools
    - f. Started fishing
    - g. Traded with other people to get commodities that were absent in their area.
    - h. Identified the oases and protected them.
  9. Five positive attitudes and values learnt from the ancient African society that went through harsh conditions because of climate change and population growth.

- a. Hard work
  - b. Teamwork
  - c. Perseverance
  - d. Self-determination
  - e. Cooperation
  - f. Unity
10. How to use the above attitudes and values to adapt to climate change.
    - Through hard work we can plant more trees to protect our environment.
    - Teamwork will encourage us to mobilise and solve climate change.
    - Unity will bring us together to fight and control climate change.
    - With cooperation we can put our talents, gifts, knowledge, resources, together to fight climate change.
    - Self-determination encourages us to overcome the challenges of climate change by thinking critically in order to create and invent technologies.
    - With perseverance we will be able to endure hardships.
  11. Mount Kilimanjaro is approximately 5,895 meters (19,341 feet) tall, making it the highest mountain in Africa and the tallest free-standing mountain in the world.
  12. Wetlands are important because they:
    - Act as natural water filters, removing pollutants from water.
    - Help prevent floods by absorbing excess rainwater.
    - Provide habitats for a wide range of animals and plants.
    - Support biodiversity and help sustain ecosystems.
    - Serve as carbon sinks, storing carbon and helping to combat climate change.
  13. Mangrove trees survive in salty water by:
    - Having special roots that filter out salt from the seawater.
    - Excreting excess salt through their leaves or storing it in older leaves that eventually fall off.
    - Some mangroves have roots that grow above the water surface to take in oxygen, as the soil they grow in is often low in oxygen.
  14. Rainforests help regulate the Earth's temperature by:
    - Absorbing large amounts of carbon dioxide (CO<sub>2</sub>) from the atmosphere through photosynthesis, which helps reduce the greenhouse effect.
    - Releasing oxygen and water vapor into the atmosphere, contributes to cloud formation and can help cool the planet.
    - Acting as a global climate stabilizer, influencing rainfall patterns and preventing extreme weather changes.

15. People and animals survive in the Kalahari by:

- Finding and conserving water through underground sources like aquifers or seasonal rivers.
- Animals, such as meerkats and gemsboks, get moisture from the food they eat, like succulent plants.
- Humans practice traditional farming techniques that are adapted to dry conditions, such as digging wells or harvesting rainwater.
- Both animals and humans adapt their behaviour to the desert heat, being more active during the cooler parts of the day.

## Extended Reading

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## ACKNOWLEDGEMENTS



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