

## P.7 SST LESSON NOTES FOR TERM I

Date		Class	Time	Subject	No. of learners

**TOPIC 1** : *Location of Africa on the world map*

**SUB TOPIC** : *Location and position of Africa using lines of latitudes and longitudes*

**Language competences/ new words**

Correct use of the words: - *latitude, longitude, position, Continent, Capricorn, Equator.*

### **LOCATION OF AFRICA**

*Africa is one of the seven continents of the world.*

**Define a continent:**

*A continent is a large mass of land usually surrounded by water.*

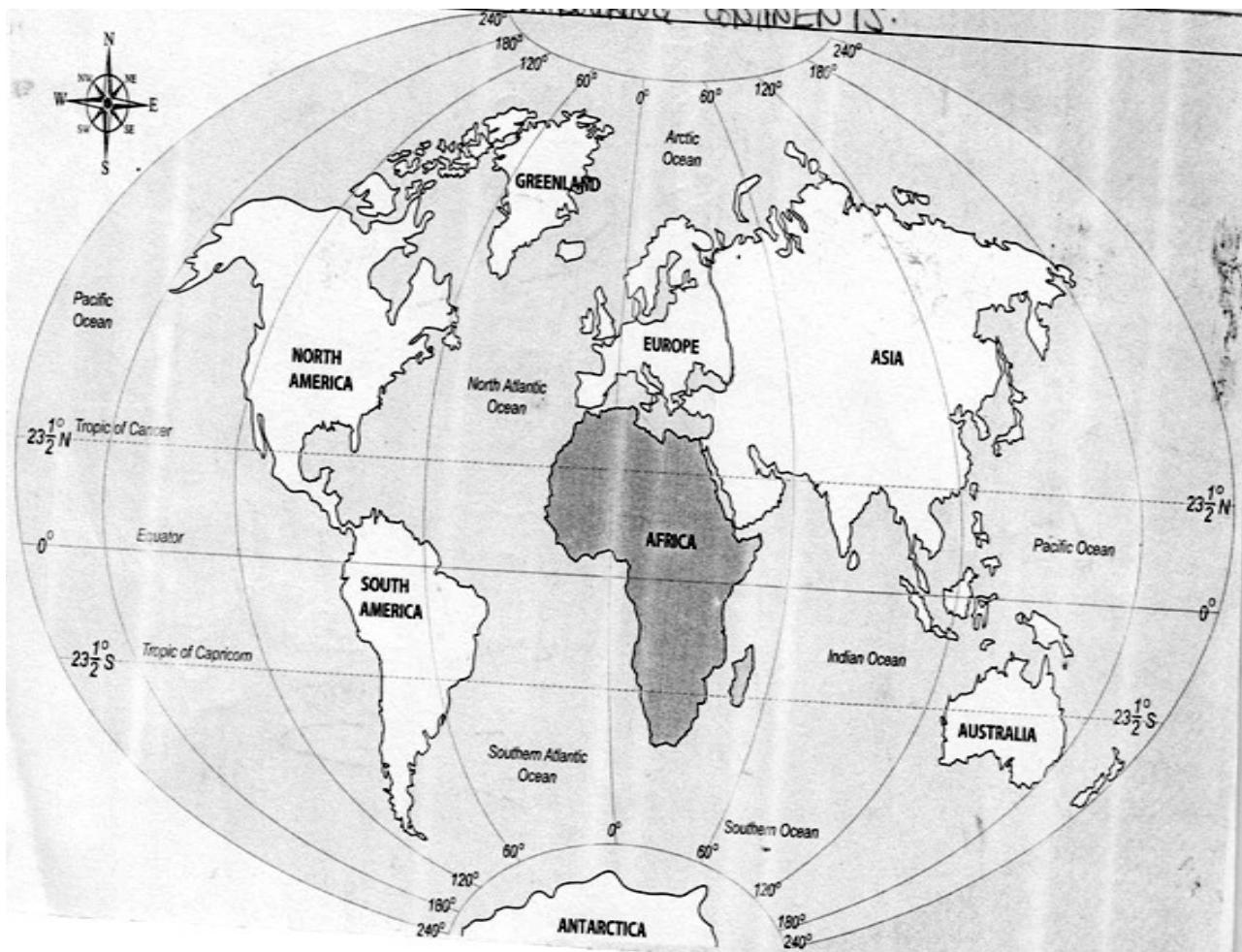
*A continent is a large mass of land found on the earth's surface.*

*Continents were formed through continental drifting.*

**Identify examples of continents in the world in order of their sizes.**

<b>Continent</b>		<b>Area covered (in km<sup>2</sup>)</b>
1. Asia	-	43,608,000km <sup>2</sup>
2. Africa	-	30,335,000km <sup>2</sup>
3. North America	-	25,349,000km <sup>2</sup>
4. South America	-	17,611,000km <sup>2</sup>
5. Antarctica	-	13,340,000km <sup>2</sup>
6. Europe	-	10,498,000km <sup>2</sup>
7. Australia	-	7,682,000km <sup>2</sup>

*Map of the world showing continents (comprehensive book 7 page 3, MK primary school Atlas).*



***State the largest continent in the world***

*Asia*

- *Africa is the second largest continent in the world.*
- *It is found in the central region of the world.*

***State the size of Africa in Sqkm.***

*30,355,000 Sqkm*

- *Africa is a continent of black people.*
- *It forms about a fifth of the earth's total land area.*
- *It is regarded as the cradle land of man because the skull of the first man was found in Africa.*

*Ways of locating Africa on the world map.*

- *By use of surrounding water bodies.*
- *By use of neighboring continents.*
- *By use of latitudes and longitudes.*

a) **USING SURROUNDING WATER BODIES**

<b>DIRECTION</b>	<b>WATER BODY</b>
<i>West</i>	<i>Atlantic Ocean</i>
<i>East</i>	<i>Indian Ocean</i>
<i>North</i>	<i>Mediterranean sea</i>
<i>North East</i>	<i>Red sea</i>

**NB.** *Important issues on Africa*

- *Africa has one great plateau*
- *Africa is crossed by the Equator and the Prime Meridian (Greenwich Meridian)*
- *Africa is also crossed by the two tropics i.e.*

*Tropic of Cancer -  $23 \frac{1}{2}^{\circ}$  North*

*Tropic of Capricorn -  $23 \frac{1}{2}^{\circ}$  South*

- *75% of its area lies in the tropics*
- *25% of its areas is covered by the great Sahara desert*
- *Africa is made up of 55 countries*
- 

***Exercise***

1. *Define the following terms.*

*Continental drifting*

*A continent*

2. *How can you locate Africa on the World map .(give 2 ways)*

3. *Which water body borders/neighbours Africa in the North East*

4. *The world was originally formed by six continents.*

*Name the newest continent*

5. *Name the second largest continent in the world.*

6. *What is meant by the term location?*

7. State any two ways of locating places.
8. Mention the instrument used to show direction of places.

Date	Class	Time	Subject	No. of learners

**TOPIC** : Location of Africa on the world map.

**SUB TOPIC** : Location of Africa using neighboring continents.

#### **Language competences**

Spelling reading and writing of these words: -Antarctica, Europe, Australia.

#### **b) .USING NEIGHBOURING CONTINENTS**

DIRECTION	CONTINENTS
NORTH	EUROPE
WEST	NORTH & SOUTH AMERICA
SOUTH	ANTARCTICA
EAST	ASIA AND AUSTRALIA

**Locating Africa using longitudes and latitudes**

**Africa is located between  $37^{\circ}N$  and  $35^{\circ}S$  and  $52^{\circ}E$  and  $17^{\circ}W$**

#### **Important latitudes that cross Africa**

Africa is crossed by three important latitudes namely:

- The Equator –  $0^{\circ}$  – central
- The Tropic of cancer –  $23\frac{1}{2}^{\circ}N$  – North
- The Tropic of Capricorn -  $23\frac{1}{2}^{\circ}S$  – South

#### **The Equator**

- This is located at  $0^{\circ}$
- It is the starting point when measuring latitudes.
- It is the centre line of latitudes.
- The equator nearly divides Africa into two equal parts.

#### **Countries crossed by the equator**

- ✓ Uganda
- ✓ Kenya
- ✓ DRC
- ✓ Republic of the Congo
- ✓ Gabon
- The area North of the equator is known as the northern hemisphere
- The area south of the equator is known as the southern hemisphere.

### **Topic of cancer**

- This crosses Africa at latitude  $23\frac{1}{2}^{\circ}N$

### **Tropic of Capricorn**

- It crosses Africa at latitudes  $23\frac{1}{2}^{\circ}S$
- Africa is the only continent crossed by both tropic of cancer and Tropic of Capricorn

### **Other latitudes that cross the world**

- Arctic circle –  $66\frac{1}{2}^{\circ}N$
- Antarctic circle -  $66\frac{1}{2}^{\circ}S$

### **Longitudes**

These are imaginary lines drawn on a map running from north to south

#### **The main longitude that crosses Africa**

- Greenwich meridian/ prime meridian.
- It is used to determine time.
- The region east of the Prime Meridian is the eastern hemisphere.
- The region west of the prime meridian is the western hemisphere..

#### **Countries crossed by the Greenwich Meridian**

- Ghana
- Burkina Faso
- Mali
- Algeria

#### **Name the town in Africa which is crossed by the Greenwich meridian.**

- Accra town in Ghana.

#### **Why is Greenwich Meridian called so?**

- It crosses a town in England called Greenwich

#### **Other important longitudes that cross the world**

- International Date Line.
- It determines dates and days.
- Calculating time using Longitudes and Latitudes.

### **Activity**

1. Why is the Equator marked zero degrees?
2. Name the only city crossed by the Prime Meridian in Africa.
3. What reason explains why the Prime Meridian is called Greenwich Meridian?
4. Differentiate between Longitudes and Latitudes.
5. Calculate the times at Longitude  $30^{\circ}E$  if it is 4:00pm at GMT.
6. Why is Uganda said to be lying in both the Northern and Southern hemispheres?

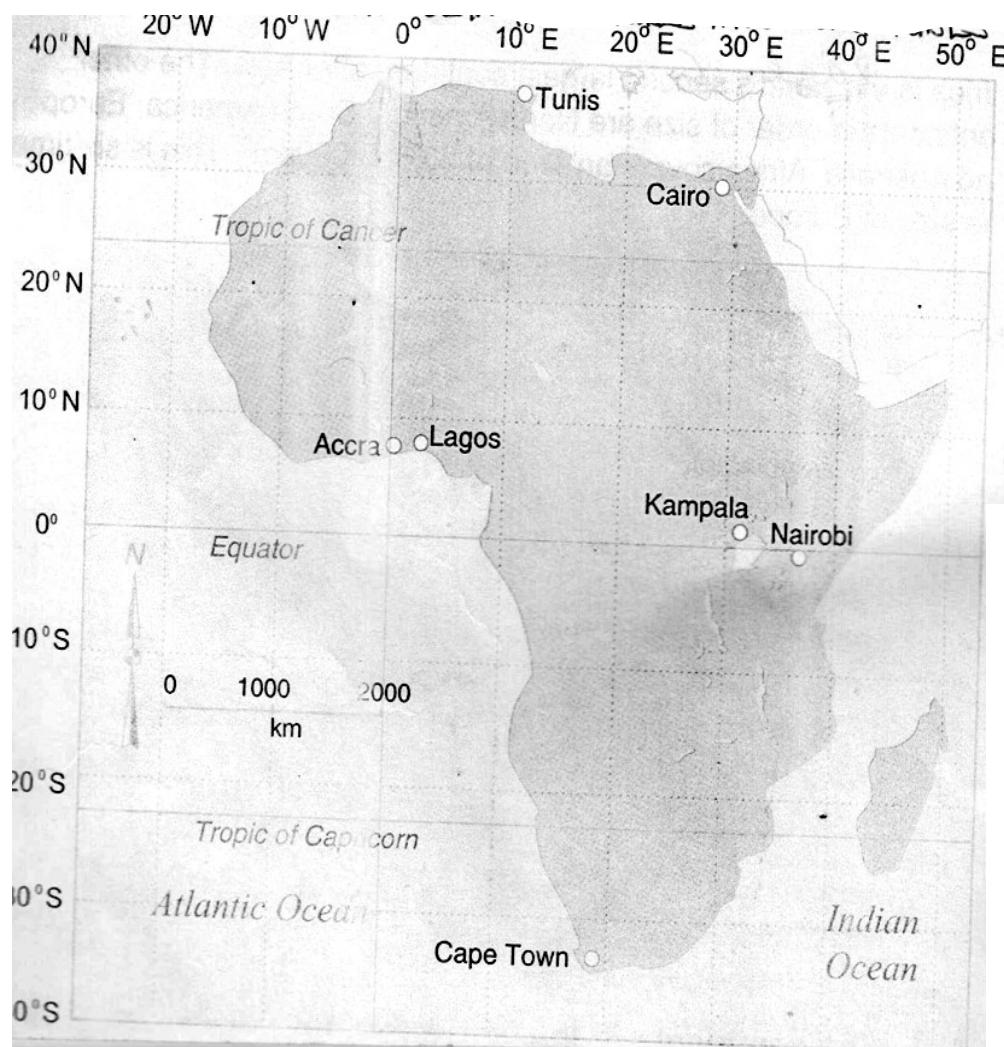
7. Name one country in Africa that lies in both Western and Eastern hemisphere.

**FACTS ABOUT AFRICA**

1. Africa is the second largest continent in the world.
2. Africa has the largest number of countries in the world.
3. Africa is made up of dark-skinned people.
4. Africa is crossed by three major Latitudes.
5. The largest part of Africa lies within the tropics.
6. Most parts of Africa experience Tropical climate.
7. Africa has the hottest desert called Sahara.
8. Africa is found in the central of other Continents.

MAP OF AFRICA SHOWING MAJOR LATITUDES AND MAJOR LONGITUDE.(NEW

FOUNTAIN SST PUPIL'S BK 7 PAGE 2)



Date	Class	Time	Subject	No. of learners

**TOPIC** : *Location of the world map*

**SUB TOPIC** : *Countries of Africa in each region and their capital cities*

### ***Language competences***

*Spell and pronounce names of countries:- Madagascar , Brazzaville, Khartoum , Tripoli, Mogadishu*

## ***THE REGIONS OF AFRICA***

*Africa is made up of the following regions*

- i) *East Africa*
- ii) *Southern Africa*
- iii) *Central Africa*
- iv) *West Africa*
- v) *North Africa*
- vi) *Horn of Africa*

### ***Countries of Africa from each region***

*Africa is made up of 55 countries*

#### ***a) Western region***

<b><i>Western region</i></b>	<b><i>Capital city</i></b>	<b><i>Country</i></b>	<b><i>Capital city</i></b>
<i>Ghana</i>	<i>Accra</i>	<i>Togo</i>	<i>Lome</i>
<i>Nigeria</i>	<i>Abuja</i>	<i>Guinea</i>	<i>Canakhy</i>
<i>Cameroon</i>	<i>Yaounde</i>	<i>Senegal</i>	<i>Dakar</i>
<i>Mali</i>	<i>Bamako</i>	<i>Mauritania</i>	<i>Nouachott</i>
<i>Benin</i>	<i>Lome</i>	<i>Guinea Bissau</i>	<i>Bissau</i>
<i>Burkinafaso</i>	<i>Ouogadougou</i>	<i>Sierraleon</i>	<i>Free town</i>
<i>Niger</i>	<i>Niamey</i>	<i>Equatorial Guinea</i>	<i>Maloba</i>
<i>Ivory coast</i>	<i>Yamoussoukyo</i>	<i>Gambia</i>	<i>Banjul</i>
<i>Liberia</i>	<i>Monrovia</i>		

*Togo, Guinea, Senegal, Guinea Bissau, Sierra leon Mauritania, Equatorial Guinea*

*b) North Africa*

<i>Country</i>	<i>Capital city</i>
<i>Egypt</i>	<i>Cairo</i>
<i>Morocco</i>	<i>Rabat</i>
<i>Libya</i>	<i>Tripoli</i>
<i>Chad</i>	<i>N. Djamena</i>
<i>Algeria</i>	<i>Algiers</i>
<i>Tunisia</i>	<i>Tunis</i>
<i>Sudan</i>	<i>Khartoum</i>
<i>South Sudan</i>	<i>Juba</i>

*c) Central Africa*

<i>Country</i>	<i>Capital city</i>
<i>Rwanda</i>	<i>Kigali</i>
<i>Burundi</i>	<i>Bujumbura</i>
<i>DRC</i>	<i>Kinshasa</i>
<i>Central African republic</i>	<i>Bangui</i>
<i>Gabon</i>	<i>Libreville</i>
<i>Congo</i>	<i>Brazzaville</i>
<i>Angola</i>	<i>Luanda</i>
<i>Zambia</i>	<i>Lusaka</i>
<i>Malawi</i>	<i>Lilongwe</i>

*d) Southern Africa*

<i>Country</i>	<i>Capital city</i>
<i>South Africa</i>	<i>Pretoria</i>
<i>Botswana</i>	<i>Gaborone</i>
<i>Namibia</i>	<i>Windhoek</i>
<i>Swaziland</i>	<i>Mbabane</i>
<i>Zimbabwe</i>	<i>Harare</i>
<i>Lesotho</i>	<i>Maseru</i>
<i>Mozambique</i>	<i>Maputo</i>

*e) East Africa*

<i>East Africa</i>	<i>Capital city</i>
<i>Uganda</i>	<i>Kampala</i>
<i>Kenya</i>	<i>Nairobi</i>
<i>Tanzania</i>	<i>Dodoma</i>
<i>Rwanda</i>	<i>Kigali</i>
<i>Burundi</i>	<i>Bujumbura</i>

*f) Horn of Africa*

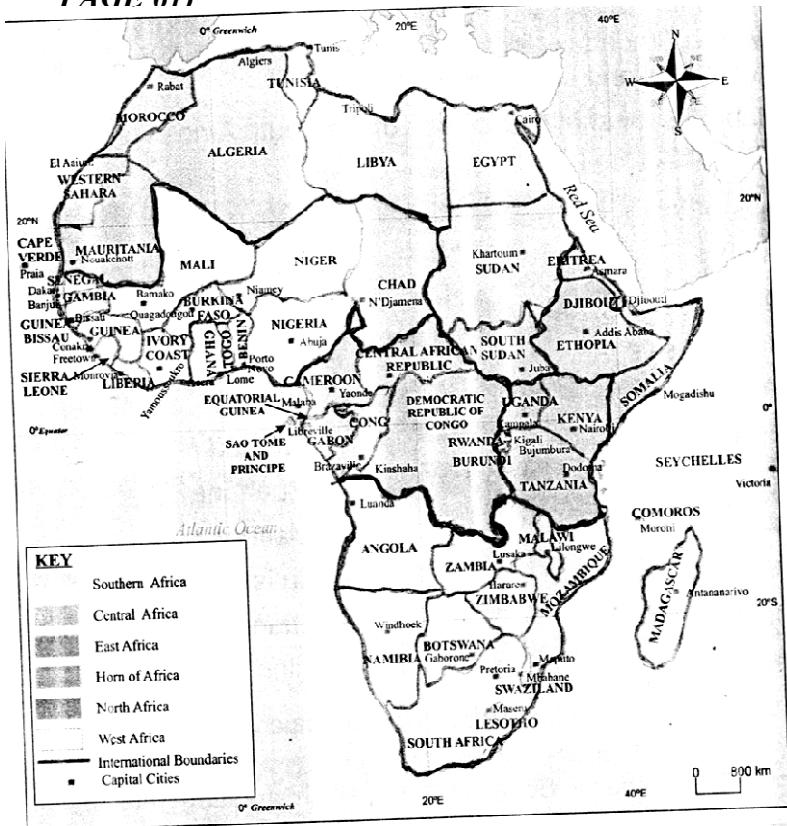
<i>Country</i>	<i>Capital city</i>
Ethiopia	Addis Ababa
Somalia	Mogadishu
Djibouti	Djibouti
Eritrea	Asmara

*g) Island countries*

<i>Island countries</i>	<i>Capital city</i>
Madagascar	Antananarivo(Biggest)
Seychelles	Victoria (Smallest)
Comoros	Moroni
Cape Verde	Praia
Mauritius	Port Louis
Reunion	Saint Denis
Sao Tome and Principe	Sao Tome

**MAP OF COUNTRIES OF AFRICA AND THEIR CAPITAL CITIES (NEW MK ATLAS)**

**PAGE 61**



*Qtn. Name the largest island. **Madagascar***

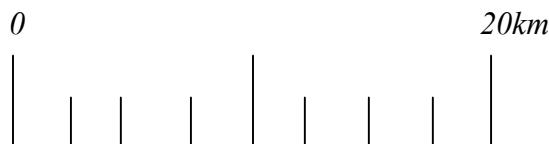
*Qtn. Name the smallest country in Africa. **Seychelles.***

**Activity**

1. *How did Ethiopia become a land locked country?*
2. *What is an Island?*
3. *Name the biggest island country of Africa.*
4. *State the capital city of Seychelles.*
5. *Why is Somalia called horn of Africa?*
6. *Identify the two countries in Africa which were not colonized.*
7. *In which geographical region of Africa is Uganda found?*
8. *Give two problems faced by Ethiopia being a land locked country.*
9. *Identify the largest island off the coast of East Africa.*

**END OF TOPICAL TEST (LOCATION)**

1. *Why is Africa a unique continent?*
2. *State any one indicator of a poor map.*
3. *What challenge will one face when studying a map without grid reference?*
4. *Mention any two types of maps you know.*
5. *Joan was going to the hospital facing North direction, if she turned  $225^0$  clockwise, what was her new direction?*
6. *Mention the direction the sun rises.*
7. *Name the map symbol below.*



8. *Thenge was going home in the evening. He saw his shadow on the right hand side. In which direction is his home?*

9. Name any one district found in Karamoja sub-region.
10. Mention any one inland country found in Africa.
11. Give any one problem faced by people living in Buvuma as an island district.
12. Give any two importance of sea ports to countries that have them.
13. State any two problems faced by people who live near sea ports.
14. What is an island country?
15. Name the most industrialized district in Uganda.
16. Mention the major cash crop grown in Kalangala district.
17. What is decentralization?
18. Which country does Uganda neighbor in the East?
19. Calculate the time at Longitude  $45^{\circ}W$  if it is 3:00pm at GMT.
20. Draw a map symbol of a stone age site in the space provided below:

<b>DATE</b>	<b>CLASS</b>	<b>TIME</b>	<b>SUBJECT</b>	<b>ENR</b>

**TOPIC: Physical features of Africa**

**SUB TOPIC: Physical features of Africa**

**Language competences:-**

Spell and pronounce names of features:- mountains, coast, plateau, plain, valley, ocean

Define physical features:

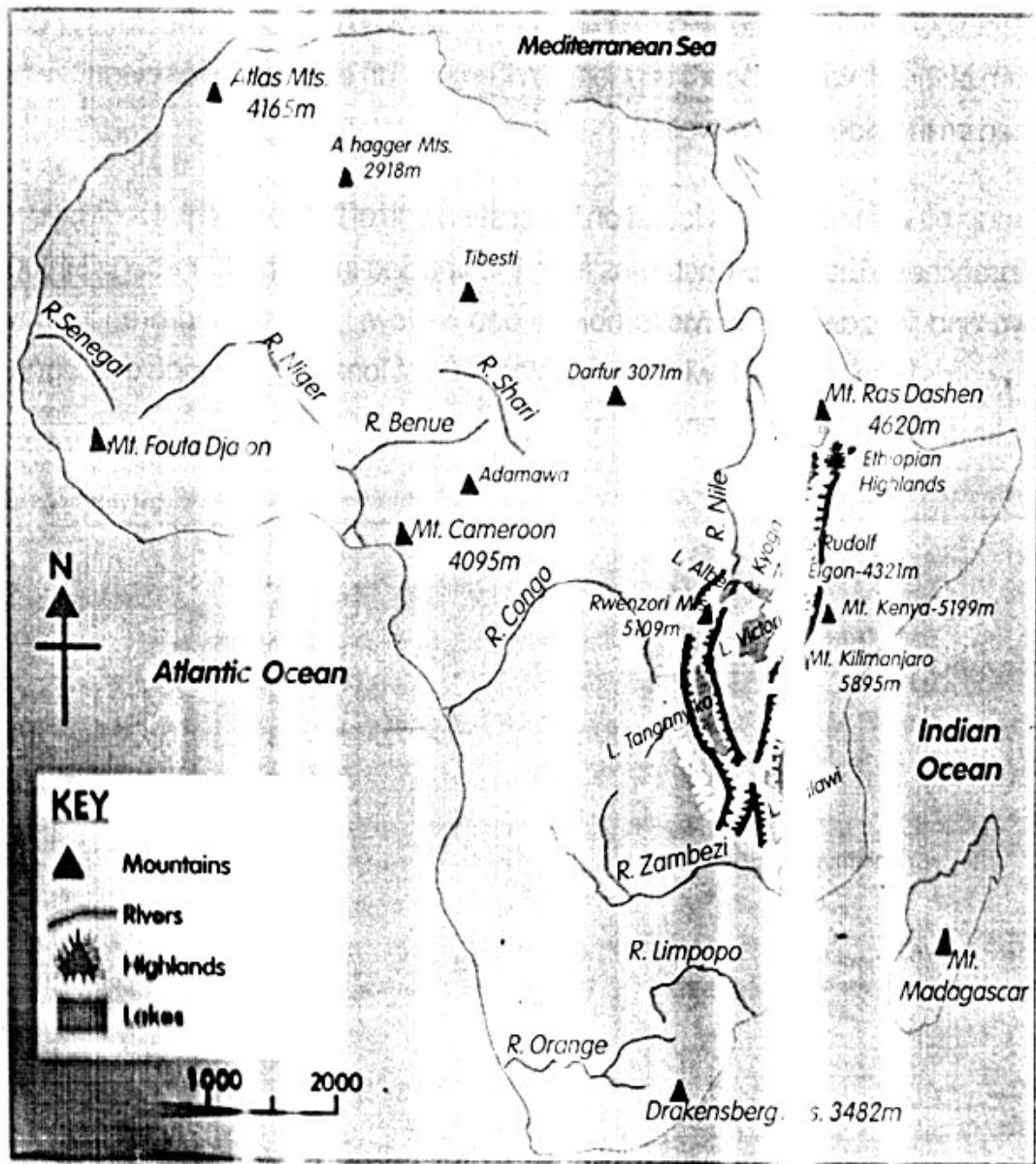
- Are the land forms found in an area.

**Examples of physical features in Africa**

**List down the examples of physical features found in Africa.**

The plateau, Mountains and highlands ,Rift valley, Oceans, Lakes and rivers, Coastal plain, Basins / Valleys / inselbergs, hot springs, streams.

**THE MAP OF AFRICA SHOWING MAJOR PHYSICAL FEATURES OF AFRICA (NEW FOUNTAIN SST PUPILS BK 7 PAGE 9)**



**Activity**

1. What name is given to mountains, rivers, lakes, oceans, and valleys?
2. What are land forms?
3. Mention any two important physical features in providing water to the people of Africa.
4. Which physical feature covers the largest part of Uganda?
5. How is faulting important to people?
6. Name the only horst mountain in Uganda.

DATE	CLASS	TIME	SUBJECT	ENR

**TOPIC :Physical features of Africa**

**SUB TOPIC :The coastal regions**

**Language competences**

The learner spells, pronounces and uses new words correctly:- coast, plain, lagoon, coral reefs

**The coastal region**

- A coastal region is a low lying area near the coast

**The land**

- The land is below 200m above sea level.

**A coast**

- A coast is a narrow strip of land between the sea and the land.
- The coast line changes shape due to the effect of land and wind waves.
- Some parts of Africa's coastline are smooth and others have gaps in them.

**Features found in the coastal region**

- Lagoons
- Coral reefs

**Lagoons**

- A lagoon is a lake formed of sea water separated by sand and mud
- Areas of the coastline with lagoons have coral reefs. There are many lagoons on the coast line of West Africa.

Diagram showing a lagoon lake

**Examples of West African countries with many lagoons**

- Ghana
- Benin
- Cote D'ivoire
- Nigeria
- The largest lagoon in Ghana is Keta.

*Examples of a Lagoon:*

- i. *L. St. Lucia in S. Africa.*
- ii. *L. Keta in Ghana*
- iii. *Lovu lagoon in South Africa.*
- iv. *Lagos lagoon lake*
- v. *Nokeu lagoon in Benin*
- vi. *Igele in Ghana.*

***Importance of lagoons***

- *Attract tourists who bring income.*
- *They are used for the construction of harbours.*

***Coral reefs***

- *Coral reefs are sedimentary rocks formed from tiny Dead Sea creatures known as polyps.*

***Importance of coral reefs***

- *They are a source of lime stone.*
- *They are a source of income through tourism*
- *Create employment to people.*

***Dangers of coral reefs***

- *Make water transport difficult*
- *Hinder the ships from entering the harbour.*

***Activity***

1. *Define a lagoon*
2. *Give two economic importance of coral reefs*
3. *What is a coastal plain?*
4. *Give two economic activities carried out at the coast.*
5. *Of what importance are harbours to countries?*
6. *Name any two sea ports constructed in natural harbours.*
7. *Why is the coast of West Africa with many lagoons?*

DATE	CLASS	TIME	SUBJECT	ENR

**TOPIC:***Physical features of East Africa*

**SUB TOPIC:***The plateaus*

**Language competences:-***plateau, raised, rise, flat, nyika*

### ***Plateau and Mountains***

- *A plateau is a raised flat topped land.*
- *Plateaus cover the largest part of Africa.*
- *The African plateau is lower in the western and rises higher in the eastern parts.*

### ***Examples of plateaus in Africa***

- *Tibest plateau in chad.*
- *A haggar (Tasili) in Algeria*
- *Jos plateau in Nigeria*
- *Fouta Djallon or guinea in guinea*
- *Yatta plateau in Kenya*
- *Nyika plateau in Kenya*
- *The Bie plateau in Angola*

*The plateau of Africa rises in series of steps. These steps rise higher and form mountains*

### ***Economic activities carried out on a plateau.***

- *Tourism*
- *Mining*
- *Farming*
- *Nomadic pastoralism*
- *Industrialization*

### ***Why is a plateau good for settlement***

- *It has fertile soils for farming*
- *It has pasture*
- *It is easier to construct houses on a plateau.*

*Qtn. Which people live in Nyika plateau? **TheMasai***

*Qtn. Name the economic activity for the above people. **Nomadicpastoralism***

### **Activity**

1. *Why is a plateau also known as a table land?*
2. *Mention one plateau found in the eastern region of Africa.*
3. *Why is a plateau important to people?*
4. *Which physical feature covers the largest part of Africa.*
5. *Draw a map symbol of a plateau in the space below.*
6. *Name any one plateau region in Uganda.*

<b>DATE</b>	<b>CLASS</b>	<b>TIME</b>	<b>SUBJECT</b>	<b>ENR</b>

**TOPIC:***Physical features of East Africa*

**SUB TOPIC:***High lands*

**Language competences:-***high lands, mountains, plateau, Ethiopian, volcano, Extinct.*

### ***The high lands and mountains of Africa***

*In some parts of Africa, the plateaus rose into highlands and mountains.*

### ***Examples of highlands in Africa***

- *Kenya highlands*
- *Adamawa highlands*
- *Cameroon highlands*
- *Ethiopian highlands – the largest in Africa.*

### ***Importance of highlands to people around them***

- *Help in rain formation*
- *Have fertile soils for farming*
- *Attract tourists who bring income.*
- *Source of minerals*

### ***Human activities carried out in highland areas***

- *Crop cultivation*
- *Tourism*
- *Mining*

### ***Problems created by highlands***

- *Soil erosion*
- *Land slides*
- *Poor transport and communication network.*
- *Hiding places for rebels*
- *Harbor dangerous wild animals.*

### ***Mountains***

- *There are three types of mountains in Africa namely*
- *Volcanic mountains*
- *Block mountains*
- *Fold mountains*

### ***Volcanic mountains***

- *They are formed as a result of volcanic activities*
- *A volcano is feature through which hot rocks, water, steam or ash pass through from the inside of the earth.*

### **Features found on a volcano**

#### ***Magma***

- *Magma is a hot molten rock underground.*

#### ***Lava***

- *Lava is a hot liquid rock on the earth's surface.*

#### ***Crater***

- *A crater is a hole found on a volcanic mountain*

#### ***Vent***

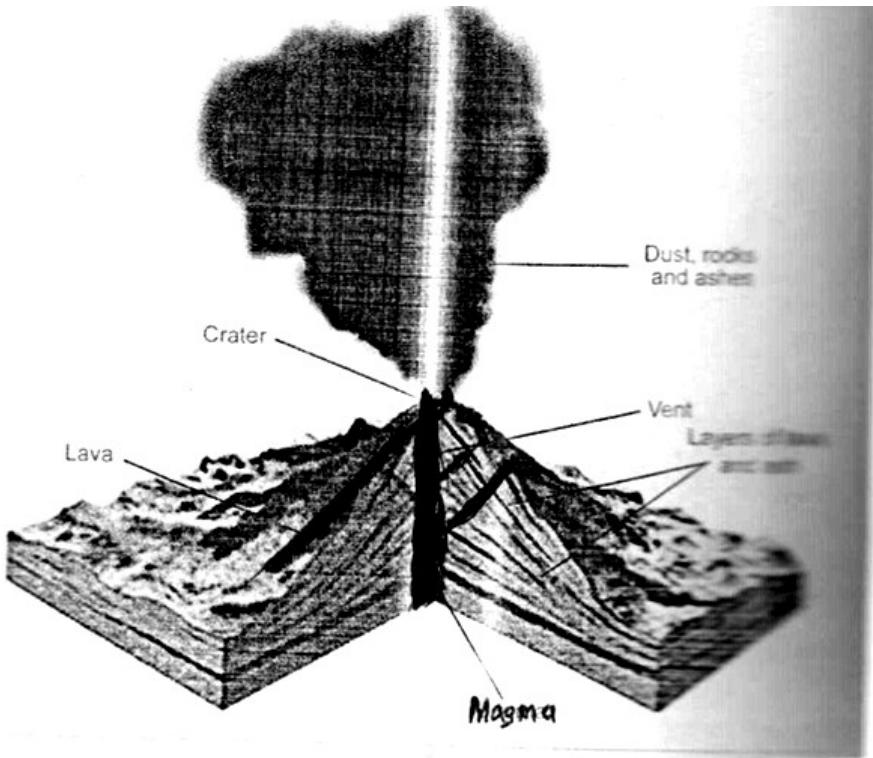
- *Vent is a pipe through which lava is emitted onto the earth's surface.*

### ***Formation of volcanic mountains***

- *Volcanic mountains are formed when molten rock known as magma forces its way on to the surface of the earth through an opening called a vent.*
- *Once on the surface, this molten rock is known as lava*

- It may flow over a large area to form plateau or flow over small areas to form features like cones or domes. (Social Studies MK SST PUPIL'S BK 5 page 21)

### The diagram showing formation of a volcano



### Activity

Draw, name and colour the features found on a volcano.

DATE	CLASS	TIME	SUBJECT	ENR

### *Types of volcanoes/ volcanic mountains*

- Active volcanoes
- Dormant volcanoes(sleeping volcanoes)
- Extinct / dead volcanoes

### *Active volcanoes*

- These are mountains that have ever erupted and can erupt at any time.

### ***Examples of active volcanic mountains***

- *Mt. Nyiragongo*
- *Mt. Nyamulagira DRC*
- *Mt. Oldonyo Lengai – Tanzania*
- *Mt. Cameroon – Cameroon*
- *Mt. Mufumbiro – Uganda*

### ***Dormant/ sleeping volcanoes***

- *Volcanos that erupt long ago and show signs of erupting in the nearby future.*

### ***Examples of dormant volcanoes***

- *Mt. Longonot – Kenya*
- *Mt. Muhavura – Uganda*
- *Mt. Moroto – Uganda*

### ***Extinct volcanoes***

- *These are volcanoes which are not likely to erupt.*

### ***Examples of extinct volcanoes***

- *Mt. Elgon – Uganda*
- *Mt. Kenya – Kenya*
- *Mt. Kilimanjaro – Tanzania*

### ***Other volcanic mountains in Africa***

- *Drakens berg – South Africa*
- *Ras Dashen – Cameroon*

### ***Importance of volcanic mountains***

- *They help in the formation of rain..*
- *Have volcanic fertile soils for farming*
- *Attract tourists who bring foreign exchange*
- *Some contain minerals.*
- *They are good habitats for wild life.*

### ***Problems caused by volcanic mountains***

- *They cause soil erosion*

- They cause land slides
- They destroy lives and property through volcanic eruption.
- They hinder transport and communication.

### **Activity**

1. Write down any two types of volcanic mountains.
2. By what process were volcanic mountains formed.
3. Give one way volcanic mountains promote agriculture.
4. Why are people discouraged from setting on the slopes of volcanic mountains?
5. Name any two Bantu tribes that live on the slopes of volcanic mountains.
6. Mention the cash crop which grows well in volcanic fertile soils.

DATE	CLASS	TIME	SUBJECT	ENR

**TOPIC:Physical features of Africa**

**SUB TOPIC:Block Mountains**

**Language competences:- block, crack, faulting, horst, layer, compression, tensional**

**Formation of Block Mountains**

- Block Mountains are formed when blocks of the earth between faults are lifted up by forces coming up from the centre of the earth.
- The raised blocks between faults are known as horsts or block mountains.

**By what process were Block Mountains formed?**

- By the process of faulting.

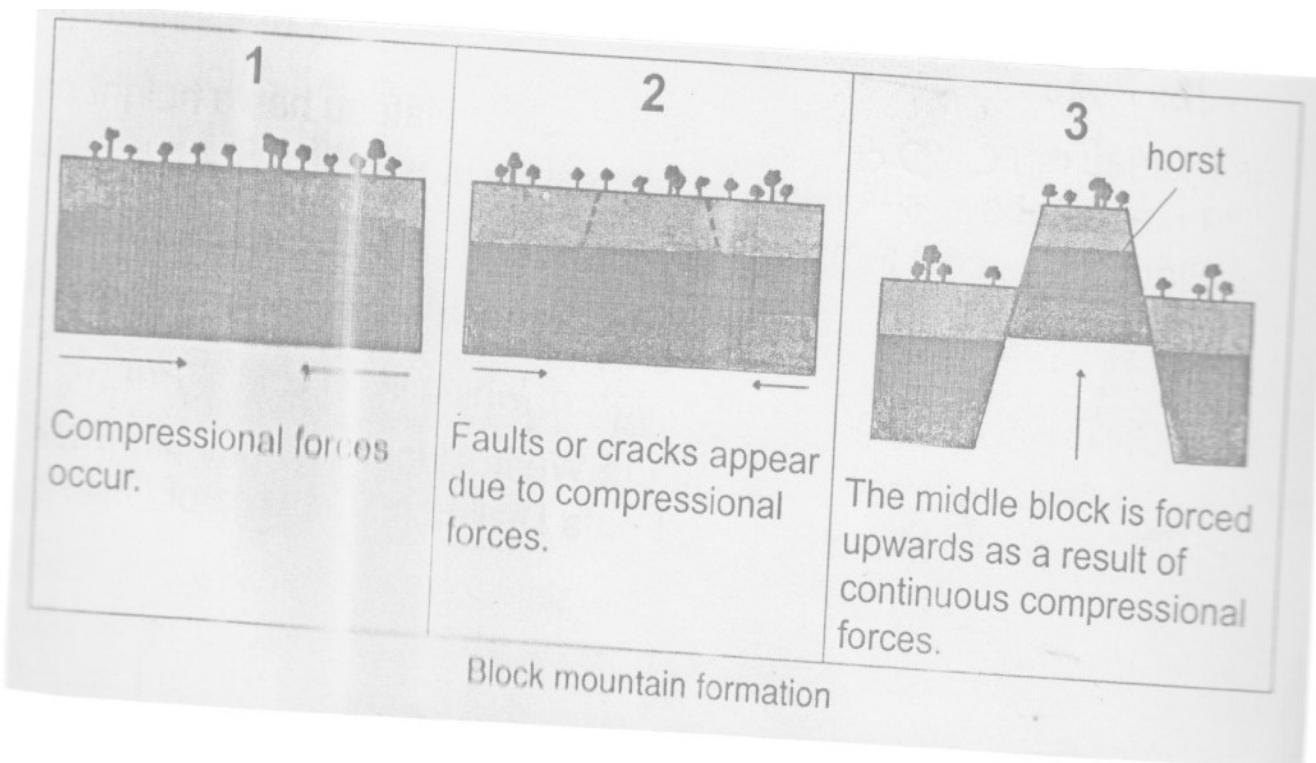
**What is faulting?**

- Faulting is the breaking of rock layers due to the pressure that builds in them

**Examples of block mountains in Africa**

- Mt. Rwenzori in Uganda
- Mt. Usambara in Tanzania
- Mt. Pare in Tanzania
- Mt .Uluguru in Tanzania
- Mt. Danakil in Ethiopia

**Formation of Block Mountains (MK ST'D SST PUPIL'S BK 5 page 21)**



**Activity**

1. Mention the force which led to the formation of block mountains
2. What is another name for a block mountain?
3. Name any two block mountains found in East Africa.
4. Give any one economic value of faulting.
5. Mention the reason why Arabica coffee does not grow well on the slopes of block mountains.
6. Apart from Block Mountains, name two other features which were formed by faulting.

DATE	CLASS	TIME	SUBJECT	ENR

**TOPIC: Physical features of Africa**

**SUB TOPIC: Formation of Fold Mountains**

**Language competences:- folding, anticlines, synclines, sunken, lifted**

## **Fold Mountains**

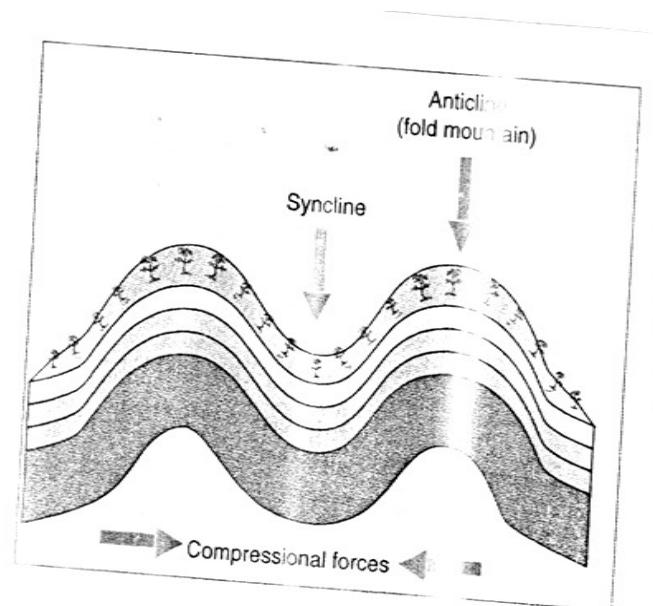
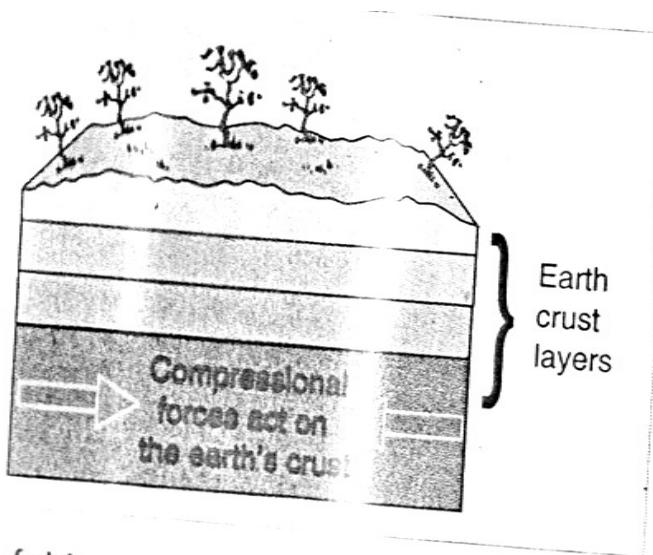
**They are formed when layers of the Earth's crust are pushed to each other by compressional forces. Young sedimentary rocks fold.**

- Fold mountains are found near the edges of continents
- They were formed by folding
- This happens when two land masses are forced by horizontal earth movements to collide.
- The rocks are lifted up and folded because they are not old.
- The rocks were very old, they would break.
- The lifted parts are called anticlines.
- The sunken parts are called synclines

### **Examples of Fold Mountains in Africa**

- Atlas mountains in morocco in N.W Africa and Algeria
- The cape ranges in South Africa

**Diagram showing formation of Fold Mountains (Comprehensive pupil's book 7 page 16)**



**How fold mountains are formed**

## **Activity**

1. Briefly give the meaning of the following terms
  - a) Anticlines
  - b) Synclines
2. What process led to the formation of fold mountains ?
3. In which country is Atlas Mountain found?
4. Give two reasons why mountains places are densely populated.
5. What factors have led to land shortage in kabala and Kisoro district?
6. Give any problems caused by land shortage.
7. Give two Ways Mountains promote development in an area.
8. State two dangers of mountains

<b>DATE</b>	<b>CLASS</b>	<b>TIME</b>	<b>SUBJECT</b>	<b>ENR</b>

**TOPIC:Physical features of Africa**

**SUB TOPIC:The Great Rift Valley**

**Language competences:- Rift valley, Faulting, Escarpments, Steep**

### **THE GREAT RIFT VALLEY**

*A rift valley is a long wide depression with steep sides on the earth's surface.*

#### **Formation of the Great Rift Valley**

- The Great Rift Valley was formed as a result of disturbances in the earth's crust.
- Due to tension, two blocks of land pulled away from each other.
- Parallel faults formed and the land at the centre sank.
- It was formed as a result of faulting
- The great rift valley covers a distance of 72000km
- It starts from Syria and runs through Jordan in the Middle East, the Gulf of Aqaba, Red Sea, Gulf of Aden through Ethiopian high lands, Kenya, Tanzania, and ends in Mozambique.

**In Africa the Great Rift Valley has four arms**

#### **The Ethiopian Rift Valley**

- It enters Ethiopia from the Red Sea.
- It has two lakes, Danakil and Abaya

### ***The western Rift Valley***

- *It runs through western Uganda, Rwanda, Burundi, and Tanzania.*
- *It has lakes; Tanganyika, Albert, Kivu, Edward*

### ***The Eastern Rift Valley***

- *It runs through Kenya and Tanzania*
- *It is the largest section of the rift valley in Africa.*
- *It has lakes; Turkana , Nakuru, Natron and Manyara.*

### ***The Malawian Rift Valley***

- *It runs through Malawi into Mozambique*
- *The lake in this arm is l. Malawi*

### ***Activity:***

1. *Apart from rift valley, write down any other three features which were formed by faulting.*
2. *Write down any three problems faced by people in rift valley areas.*
3. *In which two ways have the people tried to manage the above problems.*
4. *State two characteristics of rift valley lakes.*
5. *What is an escarpment?*
6. *Give two economic importance of rift valleys.*
7. *How do escarpments hinder transport?*
8. *Name the forces that led to the formation of rift valleys*
9. *Define Inselbergs.*
10. *How are inselbergs important.*
11. *Mention any two activities carried out in the rift valley.*
12. *Why is the floor of the rift valley having high temperatures.*

DATE	CLASS	TIME	SUBJECT	ENR

**TOPIC:Physicalfeatures of Africa**

**SUB TOPIC:The drainage system of Africa**

**Language competences:-drainage, lake, river, seasonal, permanent,tributary, Distributary, Desta, Estuary, confluence**

### ***The drainage system of Africa***

- *Drainage system refers to the ground water system of an area.*
- *The drainage system in Africa is made up of lakes and rivers.*

### ***The major rivers of Africa***

- *Africa is drained by many rivers.*
- *The rivers are in two types.*
  - a) *Perennial (permanent) rivers*
  - b) *Seasonal rivers*

#### ***Perennial rivers***

- *These are rivers that flow throughout the year.*

#### ***Seasonal rivers***

- *These are rivers that flow only in the rainy seasons*

#### ***Examples of seasonal rivers***

- a) *River Agago in Uganda*
- b) *River Turkwel in Kenya*
- *Most rivers have their sources in the highlands, where there is reliable rainfall.*
- *The rivers flow through the plateaus and plains and pour their waters into the lakes and oceans*

### ***Major rivers in Africa***

<b><i>Rivers</i></b>	<b><i>Length in km</i></b>	<b><i>Where they pour</i></b>
<i>Nile</i>	6,500	<i>Mediterranean sea</i>
<i>Congo</i>	4, 800	<i>Atlantic ocean</i>
<i>Niger</i>	4000	<i>Atlantic ocean</i>
<i>Zambezi</i>	3000	<i>Indian ocean</i>
<i>Orange</i>	2,100	<i>Atlantic ocean</i>
<i>Limpompo</i>	1,700	<i>Indian ocean</i>
<i>Senegal</i>	1,700	<i>Atlantic ocean</i>
<i>Volta</i>	1,100	<i>Atlantic ocean</i>

### ***Rivers and their tributaries***

<b><i>Rivers</i></b>	<b><i>Tributary</i></b>
<i>Nile</i>	<i>Kafu, Achwa, Blue Nile</i>
<i>Niger</i>	<i>Benue</i>
<i>Congo</i>	<i>Kasai, Ubangi</i>
<i>Zambezi</i>	<i>Kafue</i>
<i>Orange</i>	<i>Vaal</i>

### ***Terms related to rivers***

**a) Source of a river**

- *It is the starting point of a river*

**b) Mouth of a river**

- *This is the ending point of a river.*

**c) Tributary**

- *A small river that joins a main river*

**d) Distributary**

- *A small river that branches away from the main river.*

**e) Delta**

- An open mouth of a river made up of distributaries.

**f) Estuary :**

- This is an open mouth of a river.

**g) River confluence**

- A point where two or more rivers meet.

**A MAP**

Already given under physical features.

An illustration showing parts associated to rivers (Functional BK7)

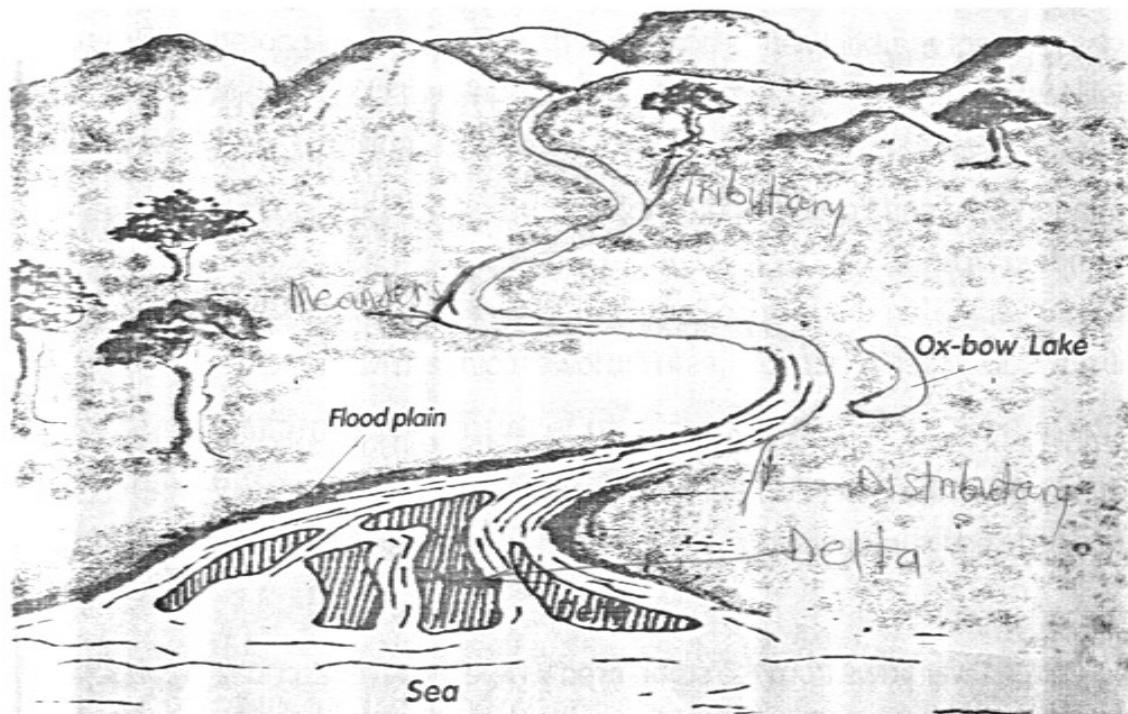


Diagram 1. 5: Showing stages of a river

**Activity**

1. Why do many rivers of East Africa flow towards the Indian Ocean?
2. Give two reasons why most rivers have their sources in mountain areas.
3. Why does R. Congo drain a lot of water into Atlantic Ocean?
4. In which way can rivers be a disadvantage to people?

5. Mention the longest river in Africa.
6. How is Lake Victoria important to R. Nile.

<b>DATE</b>	<b>CLASS</b>	<b>TIME</b>	<b>SUBJECT</b>	<b>ENR</b>

**TOPIC:**Physicalfeatures of Africa

**SUB TOPIC:**Stages of a river

**Language competences:-**stages, course, lower, upper, torrent

### **The stages or courses of a river**

- The youthful (torrent/ upper) stage
- The middle course (valley/ mature stage)
- The lower course (plain/ senile stage)

#### **The youthful stage**

- This stage occurs in the catchment areas (watershed)

#### **Characteristics of the youthful stage**

- The river flows very fast. It forms a V-shaped valley.
- It forms waterfalls and rapids.
- It flows over a steep slope
- It is very destructive and carries all movable objects

#### **Note:**

- This section of a river provides great potentials for the development of HEP projects.

#### **The middle course**

- The river flows gently.
- It encourages lateral erosion.
- The river begins to meander instead of taking the most direct course
- It begins to form flood plains
- It forms a U – shaped valley

#### **The lower course**

- This refers to the old or weak stage of a river on its course.

- It opens as the river is almost ending its journey to the lake, sea or ocean.

### **Characteristics of the lower courses**

- The river flows slowly over great plains
- It forms meanders and ox – bow lakes
- The tributaries are long and slow flowing
- The river may form deltas e.g. the Nile delta, Semliki delta

DATE	CLASS	TIME	SUBJECT	ENR

**TOPIC:**Physical features of Africa

**SUB TOPIC:**Major rivers

**Language competences:-**dam, hydro, power, project, generate

### **River Nile**

- The Nile is the longest river in Africa
- It runs out of lake Victoria
- It flows through Uganda, South Sudan, Sudan and Egypt.
- It pours into the Mediterranean Sea.
- It forms a delta as it reaches the Mediterranean Sea.

### **Dams on river Nile**

- Nalubaale dam
  - Kiira power station
  - Bujagali power station
  - Karuma dam
  - Rossires dam
  - Sennar dam
  - Aswan high dam in Egypt
- in Uganda*

### **River Zambezi**

- River Zambezi rises from northern Zambia and the Angola plateau
- It flows through Mozambique and forms its delta on the Indian Ocean.

### **Dams on river Zambezi**

- *Kafue in Zambia*
- *Kariba dam in Zambia*
- *It has Lake Kariba as a reservoir*
- *A reservoir supplies water to the constructed dam*
- *Cabora Bassa in Mozambique.*

### **Rivers that end in delta**

- *R. Nile*
- *R. Niger*
- *R. Zambezi*
- *R. Tana*
- *R. Rufiji*

### **Rivers that end with an estuary**

- *R. Congo*
- *R. Limpopo*
- *R. Senegal*
- *R. orange*
- *R. Volta*

### **River Niger**

- *River Niger starts from the two major plateaus in West Africa.*
- *Its largest tributary is called Benue.*
- *It pours its waters into the Atlantic Ocean.*
- *It is the only major river in Africa that flows to the sea.*
- *It enters the ocean in form of deltas.*

### **Dams on R. Niger**

- *Kainji dam*
- *It produces electric power for industrial use and home consumption*

### **River Volta**

- *River Volta rises from Burkina Faso and flows southwards through Ghana and drains its water into the Atlantic Ocean.*

### **The main tributaries of the R. Volta**

- *White volta*
- *Black volta*
- *Oti*
- *Lake Volta is the biggest in Ghana*
- *It was formed when Akosombo Dam was constructed to provide hydro electricity*

### **River Orange**

- *River orange rises from the mountain ranges in the East of South Africa.*
- *It flows westwards and pours its water into the ocean*

### **Tributaries of R. Orange**

- *The Vaal river*
- *R. Modder*
- *R. Caledon*

### **Dams on R. Orange**

- *Verwoerd dam on Caledon tributary*
- *Vaal dam*

### **River Congo**

- *River Congo is found in the equatorial forests of the DRC.*
- *It has so many tributaries like Ubangi and Kasai.*
- *The Congo River carries the largest volume of water to the ocean than any other river of Africa.*

### **Reasons why R. Congo carries the largest volume of water**

- *It has many tributaries*
- *Its source is in the region which receives heavy rainfall.*

### **The dams on R. Congo**

- *Inga dam*

- Nzilo dam

### **Activity**

1. Name any two Rivers in Africa which form estuaries.
2. Which stage of a river support dam construction.
3. State any two activities carried out in delta.
4. In which way do dams promote development in Africa?
5. Mention any one tributary of R. Congo.
6. How are manmade lakes formed?

DATE	CLASS	TIME	SUBJECT	ENR

**TOPIC:**Physical features of Africa

**SUB TOPIC:**Multi – Purpose River projects

**Language competences:-**multi, purpose, project

### **Multipurpose river projects**

- These are dams (projects) constructed on major rivers of Africa to serve more than one purpose of development.
- They are called multi – purpose projects because they serve several different purposes of development to people.
- During the construction of the multi – purpose river projects, artificial lakes are formed.
- The manmade lakes serve as a source of water for irrigation.

### **Examples of multi – purpose river dams in Africa**

Project	River	Country
The Aswan High Dam	R. Nile	Egypt
The Akosombo Dam	R. Volta	Ghana
The Kainji Dam	R. Niger	Nigeria
Cabora Bossa	R. Zambezi	Mozambique
Kariba Dam	R. Zambezi	Zambia

### **Examples of Multi-purpose River projects in Africa.**

1. Aswan high dam project.
2. Volta river project
3. Kainji river project
4. Kariba river project
5. Cabo Bossa dam project
6. Tana river project.

### ***Factors that favour the establishment of multi – purpose river projects***

- Presence of constant flow of water.
- Presence of strong rocks to give a strong foundation
- Presence of narrow steep sided gorge (deep valley)
- Presence of reliable **stable** market for the HEP

### ***Importance of multi – purpose river projects***

- Generate HEP
- Floods on rivers are controlled.
- A lake formed is used for fishing
- The manmade lake provides water for irrigation
- The projects attract tourists
- The lake is used for transport

### ***Problems created by the establishment of projects***

- Displacement of people
- Destruction of natural environment
- People get diseases like bilharzia

### ***ACTIVITY.***

1. In which country is the Aswan High Dam found?
2. Mention the manmade lake found behind the Aswan High Dam.
3. Of what importance is the above lake?
4. Give four reasons why the Aswan High dam was built.
5. Of what importance is the Aswan High Dam to the people of Egypt?

6. Give two disadvantages of the Aswan High Dam.
7. Why are dams constructed where there are hard rocks?
8. State any one activity carried out on multi-purpose river projects.

## ***2. Talk about influence of physical features on animals***

### ***Exercise***

1. Give any two ways in which physical features affect people's activities.
2. Name the major economic activities carried out in the plateau areas of Africa.
3. State any two ways in which mountains hinder human activities
4. Give two ways by which people of Africa have benefited from presence of lakes and rivers.

SUBJECT	CLASS	DATE	TIME	NO. OF PUPILS	L. AREA

### ***Spelling***

- Surrounded
- Caldera
- Depression
- Glacial

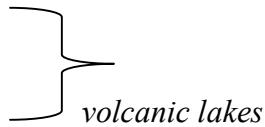
### ***A lake:***

- Is a large mass of water surrounded by land.
- Is a body of water contained in a basin or hollow.

*Lakes are formed when very wide holes on the earth's surface are filled with water.*

### **Types of lakes**

- Basin / Depression/ Down warped lakes
- Rift valley lakes
- Crate lakes
- Lava dammed lakes
- Caldera lakes
- Lagoon lakes
- Ox-bow lakes
- Glacial lakes
- Manmade lakes



### **Rift valley lakes**

*These are lakes formed on the flow of the rift valley*

**Examples of rift valley lakes**

**In Uganda**

- *L. Albert*
- *L. Edward*

**In Kenya**

- *L. Turkana*
- *L. Magadi*
- *L. Nakuru*
- *L. Naivasha*

**In Tanzania**

- *L. Tanganyika – deepest lake*
- *L. Eyasi*
- *L. Natron*
- *L. Manyara*

**In Malawi**

- *L. Malawi*

**In Rwanda**

- *L. Kivu*

**How were rift valley lakes formed**

- *By faulting*

**State any three characteristics of rift valley lakes**

- *They are deep*
- *They are long narrow*
- *They have salty water*

**State any two sources of water to rift valley lakes**

- *Rain fall*
- *Rivers*

- Streams

### **CRATER LAKES**

- Crater lakes were formed by volcanicity.
- They are formed when water collects in the craters of volcanoes.

#### **By what process were crater lakes formed**

- By volcanicity.

#### **Examples of crater lakes**

- L. Katwe in Uganda
- Mt. Elgon Crater lake in Uganda

#### **In Nigeria**

- Lake Panjam

#### **In Tanzania**

- Mt. Longonot crater lake

### **LAVA DAMMED LAKE**

These are formed when flowing lava blocks a river.

#### **By what process were lava dammed lakes formed?**

- By volcanicity

#### **Examples of lava dammed lakes**

- L. Bunyonyi
- L. Mutanda
- L. Bulera

SUBJECT	CLASS	DATE	TIME	NO. OF PUPILS	

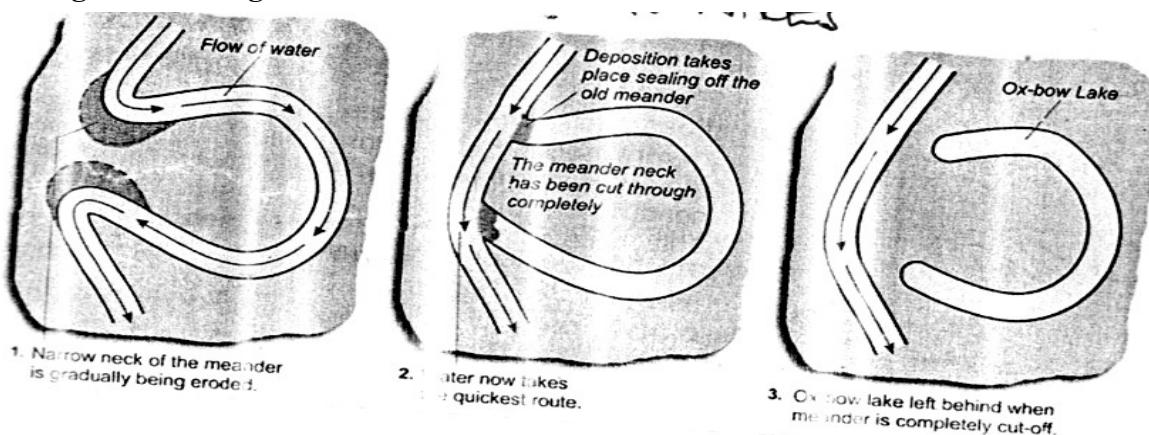
## OX-BOW LAKES

- Ox-bow lakes are formed as a result of river meander and deposition.
- They are commonly found on meandering rivers on the lower course.

### Examples of ox-bow lakes

- L. Utange on R. rufiji
- L. Gambi on R. Tana
- L. Manzala on the Nile delta in Egypt
- L. Kanyaboli on R. Yala in Kenya.

### The diagram showing the formation of ox-bow lakes



Examples include Lake Kanyaboli and Lake Shakababo in Kenya.

### Examples of rivers with Oxbow lakes

- R. Semliki
- R. Yala
- R. Tana
- R. Rufiji

## Manmade lakes

- These are formed as a result of human activities like dam construction

### Examples of manmade lakes

- L. Nasser in Egypt

- *L. Kainji in Nigeria*
- *L. Kariba in Zambia*
- *Kabaka's lake in Uganda*
- *L. Volta in Ghana*

### **BASIN LAKES**

- *Basin lakes are also called Depression / down warped lakes.*
- *They were formed by the earth's movement which resulted into the formation of depressions (basins) where water called to form lakes*

### **What process led to the formation of basin lakes?**

- *Down warping*

### **Examples of down warped lakes**

- *L. Victoria*
- *L. Kyoga*
- *L. Ambaseli*
- *L. Wamala*
- *L. Chad*

### **Give any two characteristics of basin lakes**

- *They have fresh water*
- *They have both inlets and outlets*
- *They are shallow*

### **LAGOON LAKES**

- *A lagoon lake is a lake formed of sea water separated by sand or mud.*
- *Most lagoon lakes are formed on the West Africa Coast*
- *This is because West Africa has Indented Coastline*

### ***Importance of lakes***

***In which way are lakes important to people***

### **Economic importance**

- They attract tourists who bring income
- They are source of fish which is sold to get income.
- Lakes are a source of water for industrial use
- Lakes are a source of water for irrigation.
- Some lakes are a source of minerals which are sold for income
- Lakes are used for water transport.

**Social importance of lakes to people**

- Lakes are used for recreation through swimming
- Lakes help in rain formation
- They are a source of water for domestic use.

**Political importance of lakes**

- Some lakes act as natural boundaries between countries

**State any three economic activities carried out on lakes**

- Fishing
- Tourism
- Water transport
- Mining

**Mention any two economic activities carried out by people who live near lakes**

- Fishing
- Farming
- Water transport
- Tourism

**Name the largest lake in Africa**

- L. Victoria

**Why is L. Victoria called an inter-territorial lake?**

- Lake Victoria is shared by three countries in the same region.

**How does l. Victoria help to promote trade in East Africa?**

- It has inland ports that handle imports and exports of countries in East Africa.

**Name any two inland ports found on Lake Victoria**

***In Uganda***

- Port Bell
- Port Jinja
- Bukakata port

***In Kenya***

- Port Kisumu
- Port Assembo

***In Tanzania***

- Port Mwanza
- Port Musoma
- Port Bukoba

**Problems faced by lakes**

- Water weeds
- Water pollution
- Prolonged drought
- Silting

**Give two reasons why some lakes are shallow**

- Due to silting
- Some lakes are swampy

**Dangers of lakes to man**

- They harbor dangerous wild animals that attack people
- They are breeding places of disease vectors
- Lakes lead to loss of life when people drown in them

**State any one social importance of rivers**

- Rivers are sources of water for domestic use.
- Rivers help in rain formation
- Rivers are used for recreation

### **How are rivers economically important?**

- Rivers attract tourists who bring in income
- Rivers are a source of water for industrial use
- Rivers are a source of fish
- They are a source of water for irrigation
- Rivers help to generate HEP

### **State the political importance of rivers into a country**

- Rivers form natural boundaries between countries

### **How do rivers help to promote agriculture?**

- Rivers help in rain formation which supports plant growth
- They are a source of water for irrigation
- They have fertile soils that supports plant growth

## **BASINS**

### **What is a basin?**

- A basin is a large low lying land between plateaus and highlands
- They were formed as a result of sinking of land masses
- When water collected in some basins, lakes were formed.

### **Examples of basins in Africa**

- The Nile basin
- The Victoria basin
- The Congo basin
- The Chad basin
- The Zambezi basin

### **Give any four importance of basins**

- They have fertile soils that support crop growing
- Basins attract tourists who bring income
- They are a source of fish
- They help in rain formation

### **Influence of physical features to people**

- Mountainous areas which have fertile soils encourage crop growth.
- Mountainous areas have favourable climate good for human settlement
- Lakes and rivers provide people with fish and water
- Mountains which receive reliable rainfall support plant growth
- Plants grow well on the shores of lakes due to presence of fertile soils.

### **How do physical features influence animals?**

- Physical features help in rain formation which supports plant growth
- Plants grow well on the shores –of lakes due to presence of fertile soils

### **How do physical features influence animals**

- Some physical features such as lakes and rivers are homes of some animals.
- Some physical features such as mountains, lakes and rivers provide pasture to animals.

### **Give any two factors that attract people to live near lakes and rivers**

- Presence of fertile soils that favour crop growing
- Presence of favourable climate
- Presence of economic opportunities like fishing

### **Give two reasons why mountainous areas are densely populated**

- Due to the presence of fertile soils in mountainous areas
- Due to the presence of good climate in mountainous areas

### **State any two dangers of mountains**

- Volcanic mountains can erupt and destroy property and lives
- Mountains hinder road construction
- They lead to soil erosion
- They harbor rebels
- Some mountains experience land slides that lead to loss of life and property.

### **In which way do mountains hinder human settlement**

- Mountains occupy that would be used for human settlement

SUBJECT	CLASS	DATE	TIME	NO. OF PUPILS	L. AREA

***Spelling***

- *Canoe*
- *Hyacinth*
- *Modify*
- *Navigation*
- *Capsize*

**How do lakes promote industrial growth?**

- *Water from lakes is used as raw materials in water processing industries*
- *Lakes are a source of water which is used for cooling engines of machines*
- *Lakes are a source of fish which is used in fishing processing industries*

**How do lakes help to modify the climate of an area ?**

- *Lakes help in rain formation through evaporation.*

**State any two means of transport used on lakes and rivers in Africa**

- *Ships*
- *Yacht*
- *Ferry*
- *Canoe*

**Give any two reasons why the shores of lake Victoria are densely populated**

- *The shores of lake Victoria have fertile soils for crop growing*
- *The shores of lake Victoria have favourable climate*
- *It is due to the presence of employment opportunities like fishing*

**What name was given to the area between great lakes of East Africa?**

- *Interlacustrine regions*

**Why is water transport difficult on some rivers of Africa?**

- *Some rivers have water hyacinth*
- *They have water falls*
- *Some rivers have rapids*

- They have rocks in them
- Some rivers are narrow

**State any one way water hyacinth hinders water transport**

- It blocks landing sites

**How do rocks hinder water transport on rivers?**

- They make boats capsize

**Give any two ways why water transport is possible on some rivers**

- Some rivers do not have rapids
- Some rivers do not have sudds

**Give any one reason why people do not settle on very high mountains**

- Due to the presence of snow which makes temperatures unfavourable for human settlement

**State any two importance of oceans and seas**

- They are used for water transport
- They are sources of fish they help in rain formation i.e. connectional rainfall
- They attract tourists who bring foreign exchange
- They provide water for industrial use.

**Mention any two methods that are used to control water hyacinth on water bodies in E.**

**Africa**

- Biological method
- Mechanical method
- Manual method

**State any two dangers of water hyacinth on lakes and rivers**

- It leads to death of fish due to lack of enough oxygen
- It pollutes the water in lakes and rivers
- It tears fishing nets
- It block landing sites

SUBJECT	CLASS	DATE	TIME	NO. OF PUPILS	L. AREA

### ***Spelling***

- *Isthmus*
- *Strait*
- *Gibraltar*
- *Peninsula*
- *Cape Verele*

### **Other features associated with the continent of Africa**

- *Strait*
- *Gulf*
- *Peninsula*
- *Isthmus*

### **Strait**

- *A strait is a narrow water passage between two land masses*

### **Examples of straits in Africa**

- *Straight of Babel Mondeb*
- *Straight of Gibraltar*

### **Gulf**

- *A gulf is a large area of the sea that is partly surrounded by land*

### **Examples of gulfs found in Africa**

- *Gulf of Aden*
- *Gulf of Suez*
- *Gulf of Sirte*
- *Gulf of Cabes*

### **Isthmus**

- *An Isthmus is a narrow land connecting two land masses that would otherwise be separated by water e.g.*
  - *An isthmus of Suez Canal passes and connects Africa to Asia.*

### **Peninsula**

- *A peninsula is a land that is almost surrounded by water*

### Examples

- Sinai Peninsula of Egypt
- Arabian peninsula

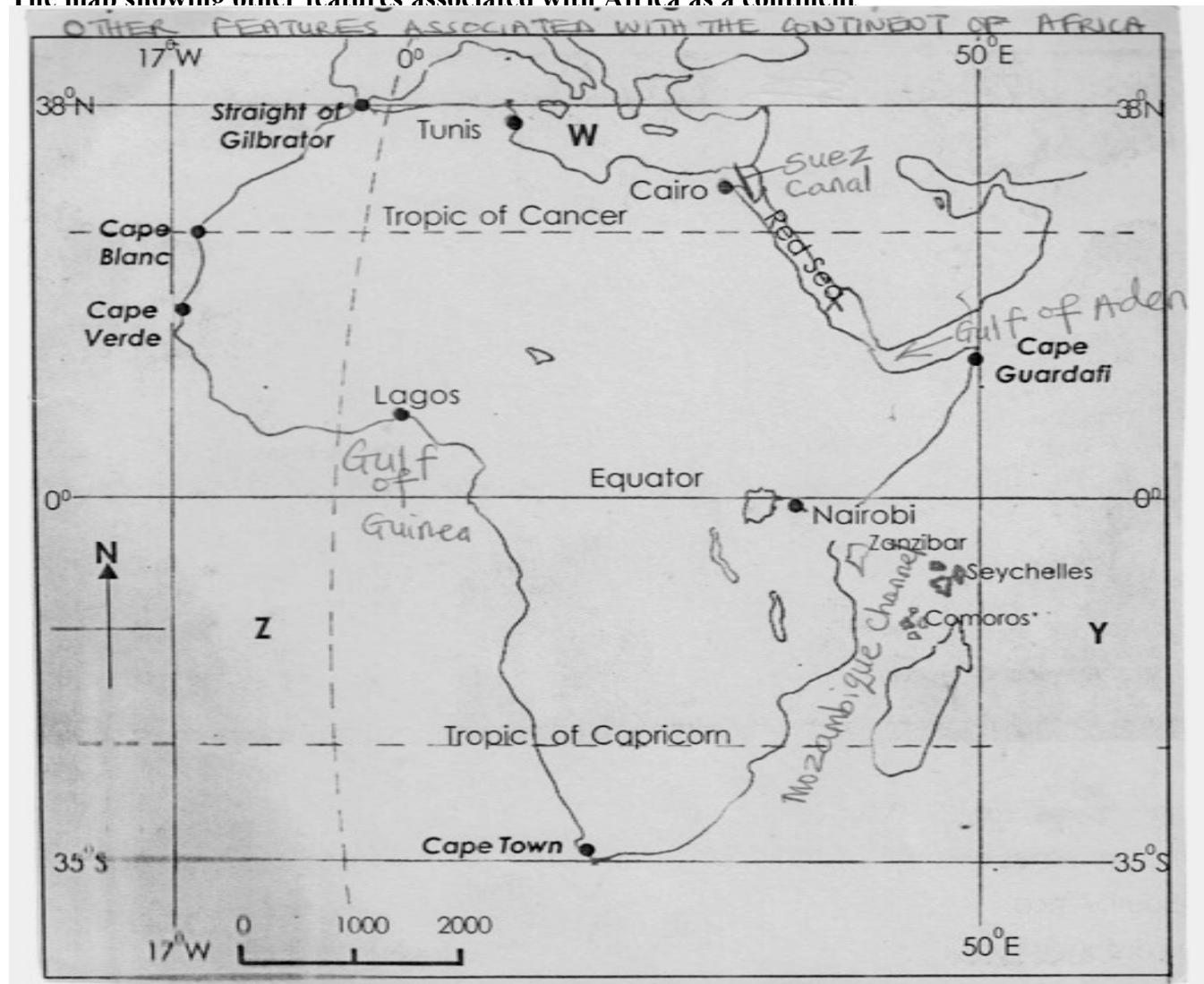
### Cape in Africa

- A Cape is a piece of land jutting into the sea.

### Examples of capes in Africa

- Cape Town
- Cape Guardafui
- Cape Verde
- Cape blanc

The map showing other features associated with Africa as a continent



### **Activity**

1. Name the strip of water between Madagascar and the coast of South Eastern Africa.
2. Name the passage of water that separate Africa from Europe
3. Name the features on the map below.

### **END OF TOPIC TEST**

1. What are relief features?
2. Mention the land form that covers the largest part of Africa.
3. State the major reason why there are many lagoons at the coast of West Africa.
4. How are coral reefs economically important to people?
5. State the difference between a valley and a plain.
6. Name any one force that led to the formation of Block Mountains.
7. What name is given to the lake found on an extinct volcano?
8. Mention the type of coffee that grows well on the slopes of dead volcanic mountains.
9. Give any one political importance of mountains.
10. Mention the arm of the rift valley that passes through Kenya.
11. Give any two examples of relief features.
12. State any two problems faced by people who live in mountainous areas.
13. Name the highest peak of mountain Kilimanjaro.
14. Give any one example of a fold mountain in Africa.
15. Why is Aswan high dam referred to as a multi-purpose dam?
16. Apart from having many tributaries, what else makes R.Congo to carry the largest volume of water to the sea?
17. What are multi-purpose river projects?
18. Why is the Niger delta of a great importance in the economy of Nigeria?
19. Give the difference between a tributary and an estuary.
20. State any two characteristics of basin lakes.

Date	Class	Time	Subject	Enr

***TOPIC:The climate of Africa***

***SUB TOPIC:Climatic Regions of Africa***

***Language competences:-climate, weather, temperature, equatorial***

***What is climate?***

- Climate is the average weather condition of a place recorded over a long period of time, usually between 30 to 40 years.

***What is weather?***

- Weather is the state of the atmosphere of a place recorded for a short period of time.

### **How is climate different from weather?**

- Weather is recorded for a short time while climate is recorded for a long period of time.

### **State the conditions of weather. States/ changes of weather.**

- Rainy , foggy, misty, sunny, cloudy, humid, windy

### **Factors/ Components/Elements of weather / climate**

- Rainfall, fog, cloud cover, air pressure, mist, wind, humidity, temperature, sunshine

### **Factors of climate**

- Temperature
- Rainfall
- Sunshine
- Wind
- Cloud cover

### **Aspects of climate**

- Rainfall
- Temperature

### **Activity**

1. Match the instruments of weather with the elements of weather they measure.

<b>Instrument</b>	<b>Weather element</b>
Rain gauge	Air pressure
Wind vane	Strength of wind
Barometer	Rainfall
Hygrometer	Direction of wind
Wind sock	Sun shine
	Humidity

### **Places where a wind sock is found**

- Airport
- Airstrip
- Airfield

### **Why is a wind sock found in the above places?**

- To help the pilot to determine the direction of wind.
- To help the pilot to determine the strength of wind.

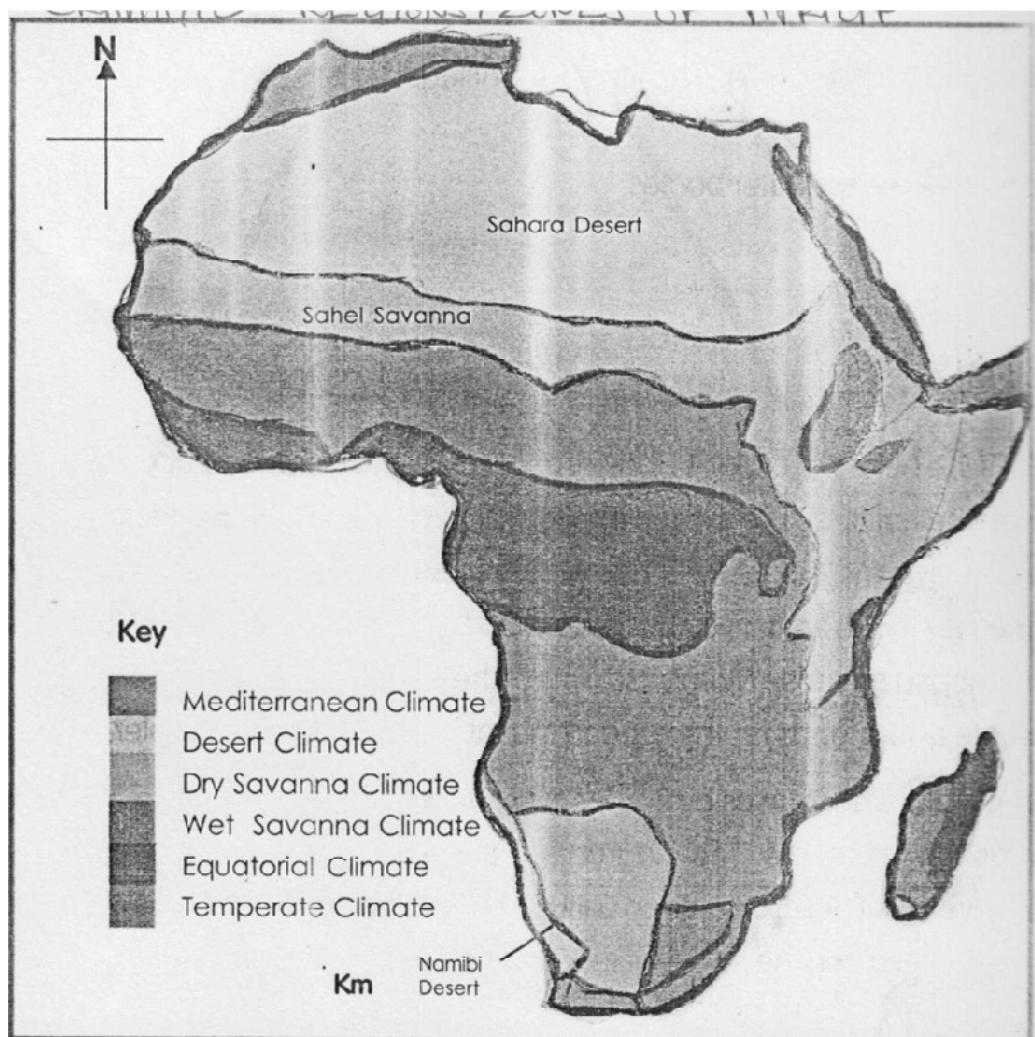
**NB: 1. Talk about meteorology, weather forecasting, weather station Stevenson screen**

### **Climatic regions of Africa**

*Africa has the following climatic regions*

- *Equatorial climatic region*
- *Tropical climatic region*
- *Mediterranean climatic region*
- *Temperate climatic region*
- *Semi desert climatic region*
- *Mountain climatic region*

**MAP THE CLIMATIC REGIONS OF AFRICA (MK PRIMARY SCHOOL ATLAS)**



DATE	CLASS	TIME	SUBJECT	ENR

**TOPIC:**The climate of Africa

**SUB TOPIC:**Equatorial climate

**Language competences:-equator, hot, wet, Savann**

### ***Equatorial climate***

- *Equatorial climate is hot and wet throughout the year.*
- *It lies within 5°N and 5°S of the equator*
- *In this region, the sun is always over head the equator*

### ***Characteristics of equatorial climate***

- *It receives rainfall throughout the year. The rainfall ranges between 1500mm – 25000mm.*
- *There is no complete dry month.*
- *Much rainfall is received during equinox.*
- *It has high temperatures of 24°C – 27°C*
- *There are usually two double maxima*
- *It receives convectional rainfall.*
- *Rainfall is usually received in the afternoon and it is sometimes accompanied with lightning and thunderstorms*

### ***Countries that experience equatorial climate***

- *DRC*
- *Northern Angola*
- *Gabon*
- *Congo*
- *Sierra Leone*
- *Central African Republic*

### ***The equatorial region covers areas such as: -***

- *The coastal areas of east Africa*
- *The southern coastal area of west Africa*
- *The west coast of Madagascar*
- *The lake Victoria basin of east Africa*

### ***Areas in Uganda with equatorial climate***

- *Entebbe*
- *Kalangala*
- *Characteristics of conventional rainfall*

- *It comes with thunder and lightning*
- *It has high temperatures*

***Economic activities carried out in equatorial regions***

- *Farming/ agriculture*
- *Lumbering*
- *Tourism*
- *Mining*
- *Hunting*
- *Latex tapping*

***Crops grown in equatorial regions***

- *Oil palm*
- *Cocoa*
- *Rubber*
- *Bananas*
- *Coffee*
- *Sugar canes*

***Examples of countries with large plantations of the above crops***

- *DRC*
- *Gabon*
- *Congo Republic*
- *Liberia*

***The Rubber Tree***

- *The rubber tree is important for its white milky substance called latex*
- *Latex is tapped in the morning and collected in the afternoon*
- *It is then taken to the plantation factory.*
- *In the factory, latex is processed into rubber by mixing it with water, then acetic acid and finally smoked and molded to make items*

***Products got from rubber***

- *Tyres for aeroplanes, motor vehicles and bicycles*
- *Shoe soles*
- *Rubber bands*

- *Balls*
- *Foot wear such as gumboots, sandals*
- *Insulating materials used against electric currents and heat.*
- *Water proof materials like raincoats.*
- *Mattresses*
- *Gloves*
- *Condoms*

### ***Properties of Rubber***

- *It is elastic*
- *It is water proof*
- *It is a non – conductor of electricity*

### ***How is the process of harvesting Rubber called?***

- *It is called tapping*

### ***Lumbering in the Equatorial region***

- *Lumbering is the extraction of timber from mature trees.*
- *Reasons why lumbering is carried out in the equatorial region*
- *It is due to the presence of hardwood trees.*

### ***Shifting cultivation in Equatorial region***

- *This is the type of farming where the cultivators leave the land bare after losing its nutrients and move to other vegetated areas.*
- *Shifting cultivation is done in areas with less trees.*
- *Quick growing seasonal crops are planted*

### ***Disadvantages of shifting cultivation***

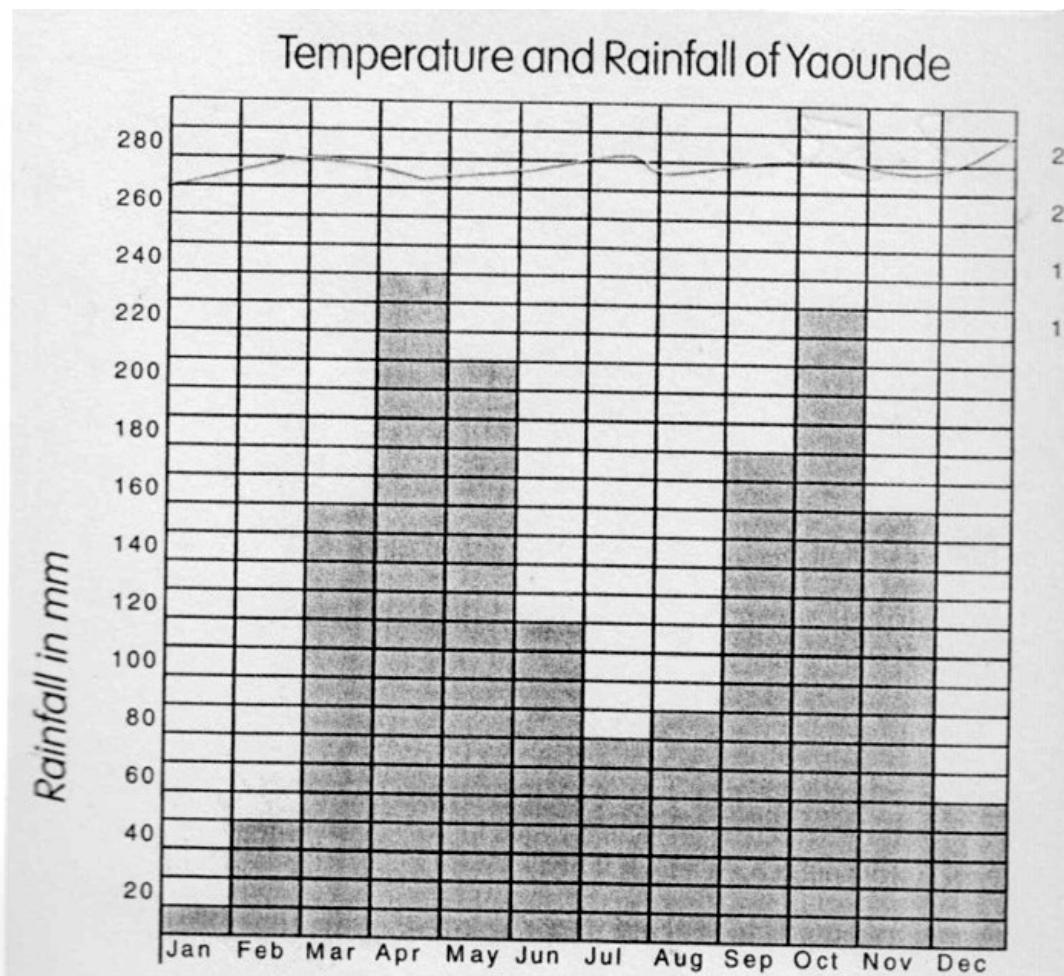
- *It encourages deforestation*
- *It encourages soil erosion*

### ***The table showing monthly temperatures and rainfall***

Months	J	F	M	A	M	J	J	A	S	O	N	D
<b>Temp°C</b>	23	23	23	22	22	22	21	22	22	22	22	24
<b>Rainfall mm</b>	40	10	150	230	205	115	65	80	195	225	100	50

1. How many heavy seasons of rainfall are shown in the table above?
2. Which month received the heaviest rainfall?
3. Mention one country in Africa where the climate above was recorded.
4. Calculate the rainfall range of the area.
5. Mention any three crops suitable for the above climate
6. Identify the type of climate above.
7. Give a reason for your answer
8. Calculate the annual rainfall of the area.

**THE GRAPH SHOWING EQUATORIAL CLIMATE (FOUNTAIN BK 7 page 48)**



DATE	CLASS	TIME	SUBJECT	ENR

**TOPIC: The Climate of Africa**

### **SUB TOPIC: Tropical climate**

**Language competences:-tropic of cancer, ,tropic of Capricorn, hemisphere , equinox**

#### **Tropical Climate**

- *Tropical climate is described as hot and wet climate.*
- *This region lies in areas between  $5^{\circ}N - 15^{\circ}N$  in the Northern Hemisphere and  $5^{\circ}-15^{\circ}S$  in the southern hemisphere.*
- *The tropical regions are located between the tropic of cancer at  $23\frac{1}{2}^{\circ}N$  and tropic of Capricorn  $23\frac{1}{2}^{\circ}S$*
- *Rain is received when the sun passes over head the equator.*
- *The period of the year when the sun is over head the equator is called equinox*

#### **Characteristics of tropical climate**

- *It receives both convectional and relief rainfall.*
- *The dry period is hot with temperatures of about  $320^{\circ}C$*
- *It receives rainfall which ranges from  $1000mm - 1500mm$*
- *It is hot and wet.*

#### **Countries that experience tropical climate**

- *Gambia*
- *Burkina Faso*
- *Chad*
- *South mali*
- *South Nigeria*
- *Sudan*
- *Zimbabwe*
- *Uganda*

#### **Human activities carried out in tropical climate**

- *Live stock farming*
- *Crop cultivation*
- *Tourism*
- *Hunting*
- *Nomadic pastoralism*

#### **Examples of the animals reared in tropical regions**

- *Cattle*

- *Goats*
- *Sheep*

### ***Why livestock is practiced in the tropical region?***

- *There is plenty of grass for domestic animals*

### ***Nomadic pastoralism in the tropical region***

- *Nomadic pastoralism is the movement of nomads from one place to another in search of water and pasture for their animals.*

### ***Pastoralism***

- *This is the rearing of large herds of cattle as a traditional or cultural practice.*

### ***Nomadic pastoralists***

- *These are people who move with their cattle from one place to another in search of water and pasture.*

### ***Examples of Nomads in the tropical region***

- *The Fulani in Nigeria*
- *The Masai in Kenya*
- *The Karimojong in Uganda*

### ***Crops grown in tropical region***

- *Coffee*
- *Tobacco*
- *Groundnuts*
- *Tea*
- *Beans*
- *Sorghum*
- *Maize*
- *Millet*

### ***Tourism in the tropical region***

- *Tourism is extensively carried out in this region.*
- *The region has more game parks and game reserves than any other climatic region in Africa.*
- *The hunting of animals from game parks is referred to as poaching.*

### ***Commercial poaching***

- This is the hunting of animals for their trophies

### **Examples of the animal trophies**

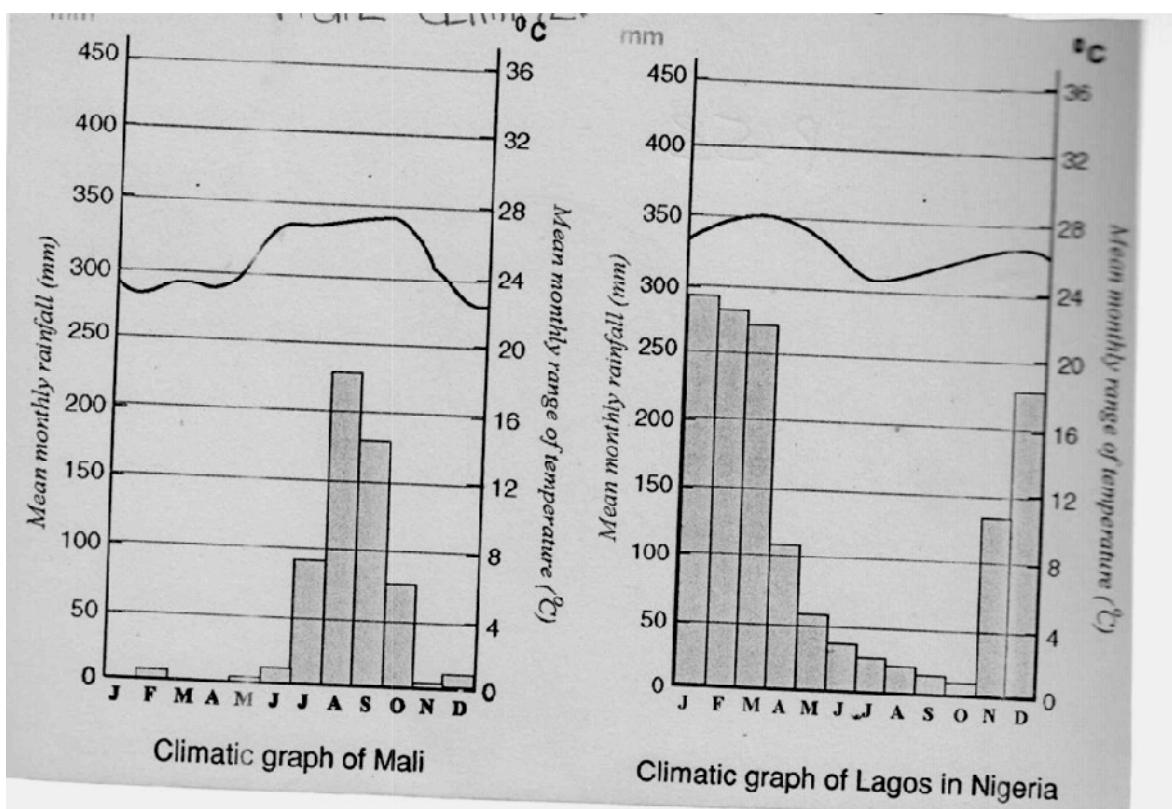
- Horns from rhinos
- Tusks/ ivory from elephants

**Table showing the monthly temperatures and rainfall for place A**

Months	J	F	M	A	M	J	J	A	S	O	N	D
<b>Temp<sup>o</sup>C</b>	25	27	35	32	35	33	28	27	27	26	26	25
<b>Rainfall mm</b>	125	110	110	20	19	—	—	—	10	15	80	125

1. State the climate described by the table above.
2. In which month was the lowest rainfall recorded.
3. Calculate the temperature range of the area.
4. Which month received the heaviest rainfall?
5. Calculate the rainfall range.
6. Name two crops that can be grown in the area.
7. Give one characteristics of the above climate.

**Climatic Graphs (Fountain pupil's book 7 page 49)**



### ***Questions about the graph***

1. Which month received the heaviest rainfall?
2. What type of climate has been described in the graph above?
3. Give one reason to support your answer in no. (ii) above
4. Describe one relationship between the rainfall and temperature.
5. Mention one dry month according to the graph.

Date	Class	Time	Subject	No of pupils

***TOPIC: The climate of Africa***

***SUB TOPIC: Mediterranean climate***

***LANGUAGE COMPETENCES:*** Mediterranean, Winter, Summer, Autumn, Citrus.

### ***Mediterranean Climate***

*It is also known as the warm temperate western climate*

- *It has hot and dry summer, warm and wet winters.*
- *The summers are hot and dry*
- *The winters are warm and wet.*
- *There is moderate rainfall mainly in winter season.*
- *Winter temperature lie between 4°c and 10°c.*
- *Summers are warm and hot and almost dry with temperature between 10° to 17°c.*
- *Mediterranean climate covers areas surrounding the Mediterranean Sea.*
- *It is found along the North Western side of the coast.*
- *It also covers the South Western Coast( tip of the Coast) of South Africa*

### ***Countries covered by Mediterranean climate***

- *Northern Morocco*
- *Algeria*
- *South Africa (Cape province)*
- *Libya*

### **Main Economic activities carried out**

- Agriculture (growing of citrus crops)
- Tourism.
- Mining

### **Examples of citrus fruits grown in the Mediterranean region**

*oranges, lemons, vines, barley, olives, apples, grapes*

### **Uses of vines**

- Vines are used for wineries.
- The growing of grape vines is known as **viticulture**
- Wine is made from the fruits called **grapes**
- Barley is used in breweries to make beer.
- Food, whisky (a strong alcoholic drink made from melted grain)

*In the Mediterranean region, many people work in orange orchards and vine yards*

### **Characteristics of Mediterranean Climate**

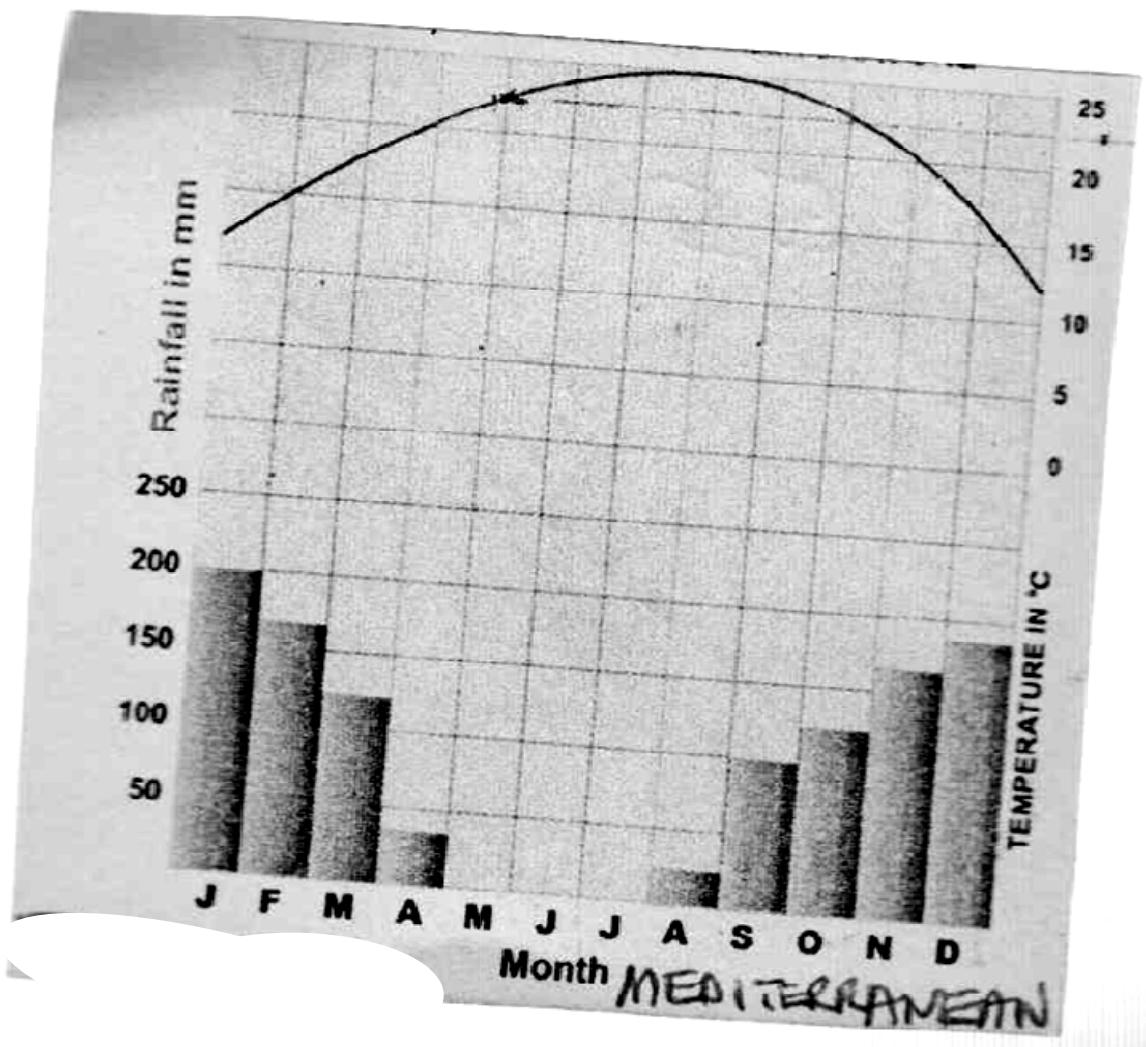
- It has hot and dry summers.
- It has warm and wet winters
- Rain fall is mainly received in winter seasons.
- The rain fall is mainly brought by the Westerly winds.

### **Describe the following terms**

- **Summer:** The hottest / warmest season between spring and Autumn
- **Winter:** The coldest seasons between spring and autumn.
- **Spring:** The season between summer and winter when plants grow.
- **Autumn:** The season of the year between summer and winter when leaves change colour and the weather becomes coldest..

*Climatic graph (Functional and sharing our world pupils book)*

*Climatic table (Functional primary SST pupil's book 7)*



### **Activity**

1. Which factory in Uganda uses barley?
2. What are wineries?
3. Mention the type of crop grown in Mediterranean Climate.
4. Name one country which experiences Mediterranean climate.
5. Describe the Mediterranean Climate.

Date	Class	Time	Subject	No of pupils

**TOPIC: The climate of Africa**

**SUB TOPIC: Temperate climate**

**LANGUAGE COMPETENCES:** Temperature, Highveld, Plateau, Summer.

### **Temperature Climate**

- Temperature climate is also known as **Highveld climate**
- It is found in the plateau of South Africa.
- The temperatures are warm in summer and cold in winter.
- This region covers the Eastern parts of South Africa to the East of Drakensberg range. These parts are referred to as **velds**.
- It is found in areas outside the tropics.

### **Examples of the parts of South Africa which are referred to as the veld**

- Transvaal
  - Natal
  - Orange Free States
- } province
- The temperature ranges between  $10^{\circ}\text{C}$  to  $21^{\circ}\text{C}$
  - The rainfall range is 500mm to 750mm annually

### **Characteristics of Temperate Climate**

- It experiences two climatic seasons which include; the hot and rainy summers and the cool-dry winters.
- The rainfall received ranges between 500mm – 750mm

### **Examples of countries that experience Temperate Climate**

- South Africa
- Swaziland
- Lesotho
- Ethiopia

### **Human activities carried out in Temperate Climate**

- Crop cultivation
- Live stock farming e.g. sheep rearing, goat rearing, cattle rearing
- Mining
- Lumbering.

**Examples of crops grown in temperate region.**

- Fruits like lemons and oranges.
  - Maize
  - Wheat
- grown in the Highveld of South Africa

**Reasons why the temperature region favours sheep rearing.**

- Due to the presence of cool weather conditions.
- Presence of abundant grass for the sheep.
- The region is free from tsetse flies.

**Climatic table (Functional pupil's book 7 page)**

**Activity**

1. Why do most farmers in Libya practice irrigation?
2. State two ways in which wild animals can be protected in their natural environment.
3. Give any two products got from sheep.
4. A part from oranges, name two other examples of citrus fruits.
5. Explain how lumbering has affected the environment in tropical areas.
6. Mention the area in South Africa where maize is grown.
7. State one condition which favours the rearing of sheep in the temperate regions.

Date	Class	Time	Subject	No of pupils

**TOPIC: The climate of Africa**

**SUB TOPIC: Mountain climate**

**LANGUAGE COMPETENCES:** Altitude, Mountain, Montane

**Mountain (Montane) Climate**

- The atmospheric conditions changes with altitude.
- An increase in altitude causes a decrease in air temperatures.
- A decrease in altitude leads to an increase in temperatures.
- Temperatures change by about  $1^{\circ}\text{C}$  for every 150 metres of ascent above sea level.
- If one descends by 300 metres, his/her temperature rises by  $2^{\circ}\text{C}$

- Highest temperatures in Africa are in areas below sea level.
- Lowest temperatures are in areas above 4500m above sea level.

**Why do areas above 4500metres above sea level experience Low Temperatures?**

- They are above the snow line

**Mountain climate is experienced in areas like**

- Drakensburg mountains
- Ethiopian high lands
- Mt. Kilimanjaro
- Mt. Rwenzori.

**Explain why the tops of Mt. Rwenzori and Mt. Kenya are covered with snow yet they are found along the Equator**

- The tops of Mt. Rwenzori and Kenya are above snowline.

**Mountains in Africa which are snow capped**

- Mt. Rwenzori
- Mt. Kenya.
- Mt. Kilimanjaro

**The Semi- Desert**

**Semi -Desert Climate** is described as a hot and dry climate.

- It has very hot seasons and little rainfall is received.
- This type of climate lies within an area of  $15^{\circ}N$  to  $20^{\circ}N$  AND  $18^{\circ}S$  to  $23\frac{1}{3}^{\circ}S$  of the Tropic of Capricorn.

**Examples of countries experiencing Semi- Desert Climate**

- Namibia
- Botswana
- Niger
- Northern Nigeria
- Mali
- Northern Sudan

**Human activities in Semi Desert Climate**

- Nomadic pastoralism

- Crop cultivation by irrigation
- Mining

**Examples of the animals reared**

- |          |         |
|----------|---------|
| ▪ cattle | ▪ sheep |
| ▪ camels | ▪ goats |

**Crops grown in Semi –Desert Climate**

- |           |          |
|-----------|----------|
| ▪ millet  | ▪ barley |
| ▪ sorghum | ▪ olives |

**Why should people in Semi –Desert areas grow fast maturing crops?**

- Semi – desert areas receive little rainfall

A graph and table showing Semi-desert climate (Functional pupil's book 7 page 50)

Date	Class	Time	Subject	No of pupils

**TOPIC: The climate of Africa**

**SUB TOPIC: Desert climate**

**LANGUAGE COMPETENCES:**Oasis, Sahara, Kalahari, Namib

**Desert climate**

- Desert climate is described as a hot and dry climate throughout the year.
- Desert climate has very hot temperatures over  $30^{\circ}\text{C}$
- It receives very little rainfall.
- During the day, desert regions are very hot with temperatures varying between  $35^{\circ}\text{C}$  and  $50^{\circ}\text{C}$ .
- During the night , temperatures fall below  $5^{\circ}\text{C}$

**Reasons why Deserts experience very High Temperatures during the day**

- The rays of the sun strike the earth direct with no cloud to reduce their temperatures.

**Reasons why the nights are very cold in Deserts**

- There are no clouds at night to stop the heat from rising into the sky.

**Examples of Deserts in Africa**

- The Sahara desert in Northern Africa.
- The Kalahari Desert which borders the Namib Desert to the East.
- The Namib Desert; at the South Western Coast of Africa

### ***Types of Desert***

- *Marine Deserts*
- *Continental Deserts*

### ***Examples of marine Desert***

- *Namib Desert in South Western Africa*

### ***Examples of Continental Deserts***

- *The Sahara Desert – hottest area in the whole world*
- *Kalahari Desert*

### ***Why is Sahara and Kalahari Desert called continental Deserts?***

- *They lie inside the continent.*

### ***Causes of Deserts***

- *Deserts are caused by dry winds which blow over their land.*
- *They are caused by cold currents.*

### ***Examples of the cold Ocean currents which cause Desert conditions***

- *The Benguela cold currents, responsible for the Namib and Kalahari Deserts.*
- *The canary cold currents responsible for the Sahara Desert.*

### ***Human activities in Desert Climate***

- *Tourism*
- *Nomadic pastoralism*
- *Mining*
- *Irrigation farming.*

### ***Mention the economic activity carried out by most people in the Desert Regions.***

- *Nomadic pastoralism.*

### ***Where in the Desert is farming practiced***

- *Farming is practiced near the Oases.*

### ***What is an Oases?***

- *An Oases is a water source in the desert.*

### ***Mention the crops that grow well in Desert Regions.***

- *dates*
- *barley*

- olives

**Mention the method of farming which is practiced in the Desert Regions.**

- Irrigation farming.
- Irrigation can be successful where there is a continuous supply of water and where the land is flat or almost flat

**Reasons why R.Nile is referred to as the life blood of Egypt and Sudan.**

- The Egyptians and Sudan use the waters of the Nile for irrigation.

**How Libya made irrigation possible in the Desert**

- Libya constructed a man made River to provide water for irrigation.

**Importance of irrigation farming.**

- It ensures continuous crop production throughout the year

**Problems faced by people who practice irrigation farming.**

- Irrigation is very expensive.
- It requires a place with a reliable supply of water

The people who lived in desert areas wear light white clothes.

**Why do people in desert areas wear light white clothes?**

- To reflect heat from the sun.

They build flat topped clay houses to prevent the roofs from being blown off by strong winds.

**Animals reared in Desert Regions.**

- camels
- cattle
- sheep
- goats

**Why are camels referred to as the ships of the Desert**

- They are used for transport in the Desert

**Reasons why camels survive in Deserts than other animals**

- Camels have hard- eye lids and skins which protect them from desert sand.

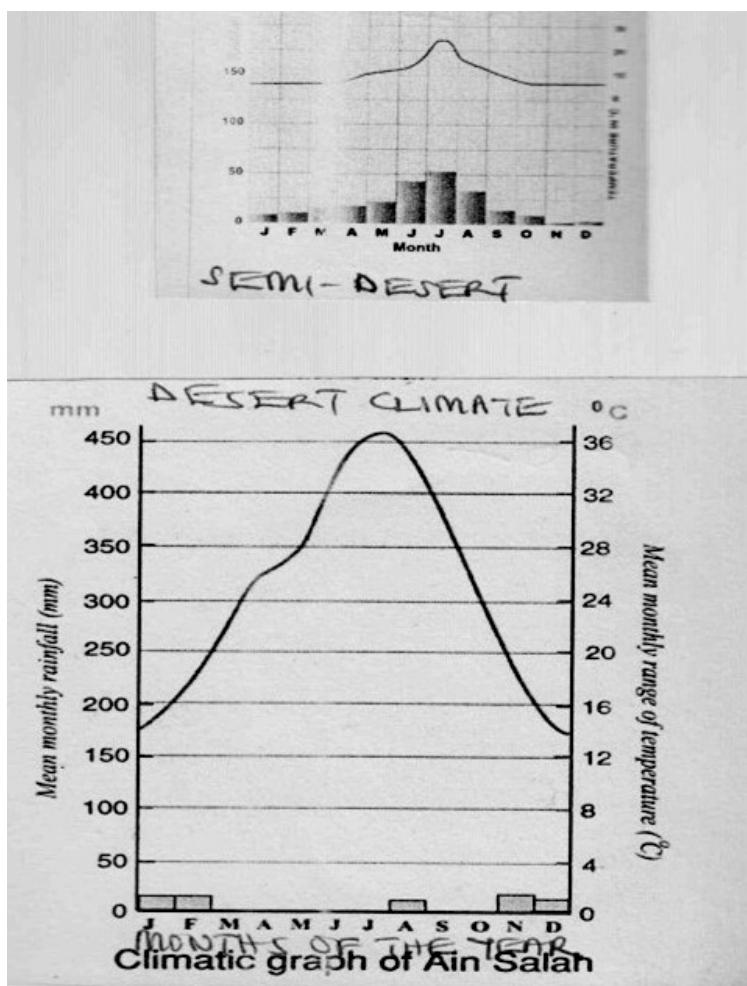
- They have huge humps which enable them to stay without food for along time.
- They have large hooves which enable to move in the sandy areas easily.

## ACTIVITY

### A. Table showing temperatures and rainfall for Walvis Bay in Namibian West Coast

Months	J	F	M	A	M	J	J	A	S	O	N	D
<b>Temp°c</b>	18.5	19	19	18	17	16	16	14	15	14	18	17
<b>R/rain mm</b>	3	3	7	7	3	3	—	—	—	—	—	—

B. Use the graph below to answer questions that follow.



1. Which months received the same amount of rainfall?
2. List any three months without any rainfall.
3. Which month receives the heaviest rainfall?

4. What is the difference between the amount of rainfall received in March and May?
5. What is the total amount of rainfall received by Walvis Bay per year?
6. Give one cause of a Desert in an area.
7. List down one characteristic of Desert Climate
8. Name one country that experiences Desert Climate.
9. How are Oases important to the people in Desert regions
10. Mention any tourist attractions in the Desert Region.

Date	Class	Time	Subject	No of pupils

**TOPIC:** *The climate of Africa*

**SUB TOPIC:** *factors which influence the climate of Africa*

**LANGUAGE COMPETENCES:** factor, influence, altitude, ocean current, attitude.

#### **Factors that influence/affect the climate of Africa**

- Climate across Africa varies. This is because the factors which influence climate are different.

**These factors include;** Altitude, Latitudes, Ocean currents, Wind (prevailing wind), Distance from large water bodies), Vegetation, Human activities, Relief.

**Altitude:** This refers to the height of a given area above sea level.

#### **How altitude affects climate**

- Temperatures decrease with increasing altitude.
- Areas on a high altitude are cooler than areas on a lower altitude.
- The climate of low lands is warmer and that of highlands areas is cooler,

**e.g.**

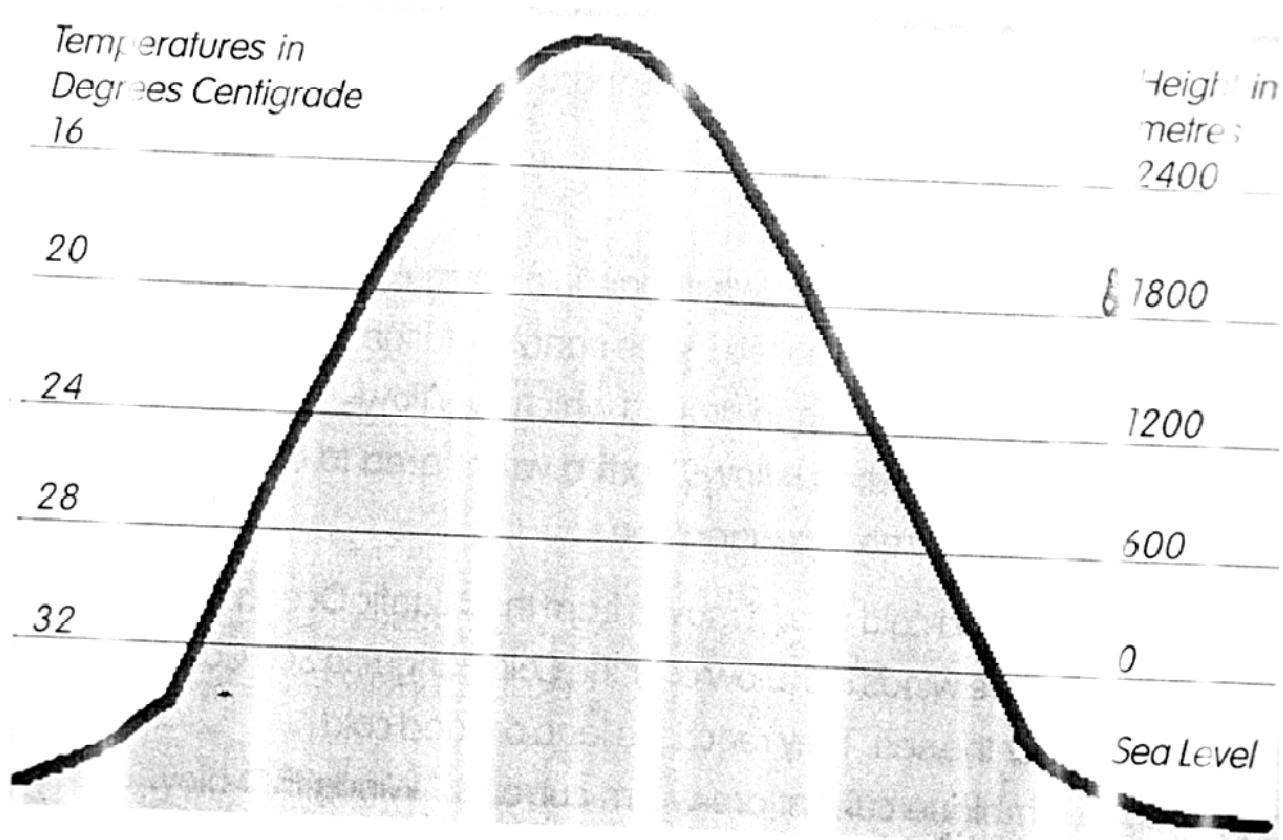
- Mombasa and Dar-es-salaam are at sea level. Their altitude is 0 metres above sea level, therefore they are warmer.
- Nairobi is cooler than Mombasa because Nairobi is on a higher altitude yet Mombasa is near the sea level.

The temperature decreases by  $2^{\circ}\text{C}$  for every 300m of rise in altitude.

This decrease is known as the Lapse rate

The lower parts of mountainous areas are warm and their temperatures are high but as one moves upwards, temperatures decrease.

**The effect of altitude on temperature (Functional pupil's SST book 7)**



**Latitudes (Distance from the Equator);** places near the Equator are hotter and received plenty of rainfall than places further North or South of the Equator.

**Why places near the equator are hotter than places further**

- This is because the sun over heads the Equator twice a year.

**Reason why areas near the equator receive more rainfall than other areas**

- This is caused by high temperature in the region.

Latitudes also affect seasons when the Northern Mediterranean regions of Africa experience summer season, the southern regions experience the winter.

**How latitudes affect climate (Functional primary school SST pupil's book 7)**

## **Activity**

1. List down four factors responsible for changes in the climate of Africa.
2. Explain why desert areas are hot during the day and cold at night.
3. Which winds are responsible for bringing rainfall in the Mediterranean regions?
4. How do latitudes influence the climate of an area?
5. Mention two districts in Uganda which are crossed by the Equator.
6. Why is the climate of Uganda cooler than that of DRC yet they both lie along the Equator?
7. Why is the climate of Nairobi cooler than of Cairo in Egypt
8. Mention any two climate regions of Africa.
9. Explain why Africa has different climatic zones

Date	Class	Time	Subject	No of pupils

**TOPIC:** *The climate of Africa*

**SUB TOPIC:** *Prevailing winds*

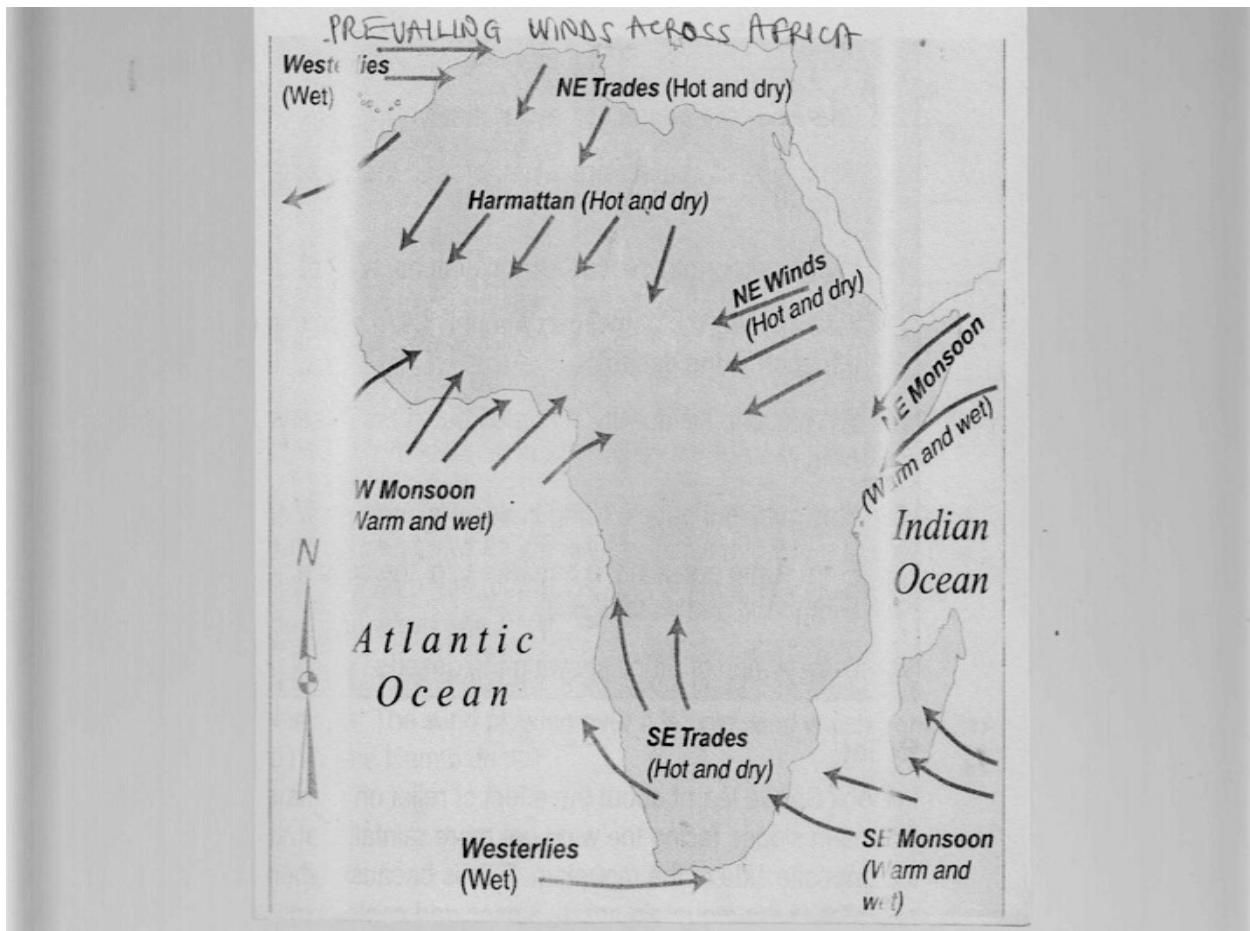
**LANGUAGE COMPETENCES:**

### **Prevailing Winds**

- Prevailing winds bring warm weather as they pass over warm surfaces.
- They also bring cold weather as they pass over cold surface
- The North East trade winds which blow from Arabia towards the horn of Africa are dry
- They don't bring rainfall.
- Westerlies bring rain in winter to the Mediterranean areas of the cape region in South Africa and in the North.
- The south- east trade winds bring rainfall to Madagascar and East Africa because they are warm.
- The hot and dry Harmattan winds bring no rain to West Africa. It blows over the Sahara Desert.

## A MAP

### PREVAILING WIND AROUND AFRICA (MK primary school Atlas)



### Distance from the water bodies

- Areas which are close to the water bodies experience heavy rainfall than far inland areas.
- When water bodies are heated, moist air rises to form rain.

### Vegetation

- Places with thick vegetation receive heavy rainfall unlike places with no vegetation.
- Vegetation forms rainfall due to transpiration.

### ***Human activities that modify climate***

- *Afforestation*
- *Agroforestry*
- *Preserving swamps*
- *Controlling bush burning*
- *Controlled over grazing*

### ***Human activities that lead to drought***

- *Deforestation*
- *Swamp drainage*
- *Over cultivation*

### ***Activity***

1. *What is wind?*
2. *What causes wind?*
3. *Mention the winds that bring rainfall to East Africa.*
4. *Why are places near the Equator hotter than places far away from it?*
5. *How does wind affect the climate of a place?*
6. *State one positive activity of man that modify climate.*

<b><i>Date</i></b>	<b><i>Class</i></b>	<b><i>Time</i></b>	<b><i>Subject</i></b>	<b><i>No of pupils</i></b>

***TOPIC: The Climate of Africa***

***SUB TOPIC: Ocean Current.***

***LANGUAGE COMPETENCES:***

- |                        |                   |
|------------------------|-------------------|
| - <i>Particular</i>    | - <i>Surface</i>  |
| - <i>Guinea</i>        | - <i>Salinity</i> |
| - <i>Ocean Current</i> | - <i>Benguela</i> |

### ***Ocean Currents***

- *Ocean current are masses of water, which flow in a particular direction on the surface of an Ocean.*

### ***Causes of ocean currents***

- *Earth's movement*
- *Winds*
- *Movement of wind over a mass of water steadily flowing in a particular direction.*

*Ocean currents affect the climate of the land around which they flow.*

### ***Types of ocean currents***

- *Warm ocean currents*
- *Cold ocean currents.*

***Warm ocean currents;*** - *warm ocean currents brings rainfall*

*-They also make the coastal areas warm*

### ***Examples of warm ocean currents***

- *Mozambique Ocean current. (Agulhas current)*
- *Guinea current*
- *Somali current.*

### ***Cold ocean current***

- *Cold ocean currents are dry and cool*
- *They bring no rainfall i.e. bring drought*
- *They make coastal areas cold.*

### ***Examples of cold Ocean current***

- *Benguel current in Southern Africa.*
- *Canary current.*

### ***How do Ocean currents affect the Climate of Africa?***

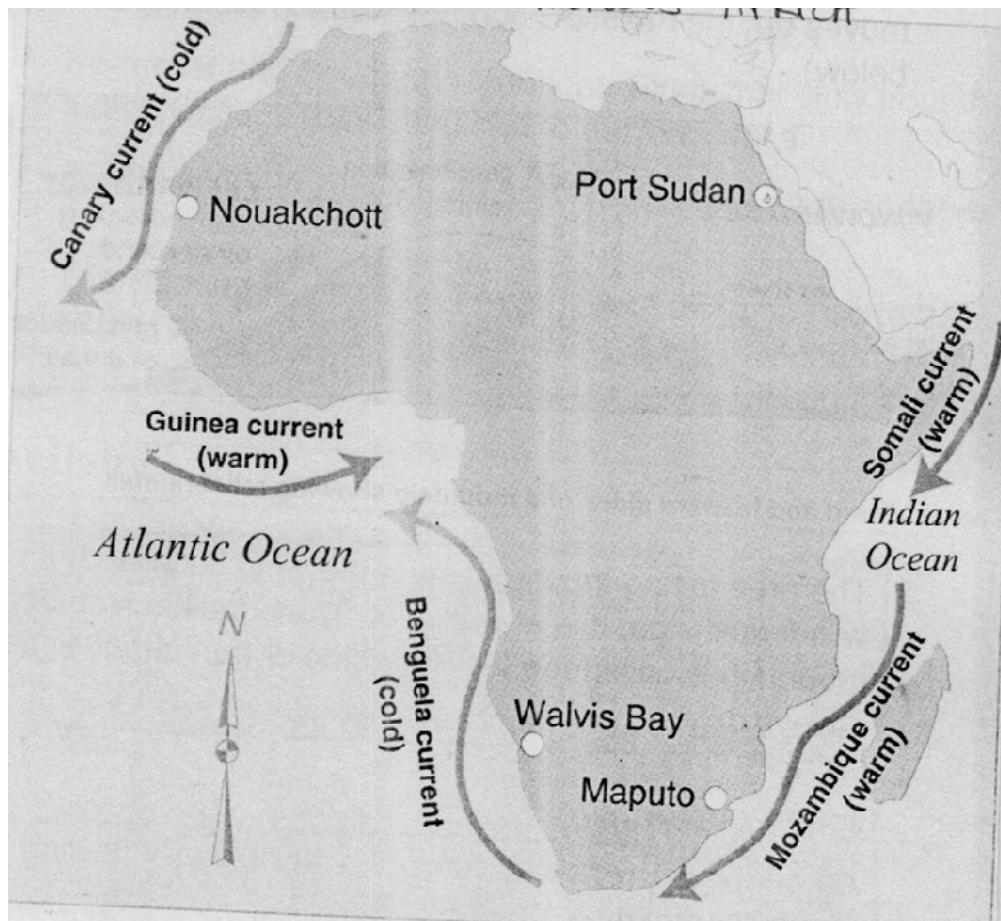
- *Warm ocean current bring rain while cold ocean currents bring drought.*

### ***Characteristics of Ocean Current***

- *Warm ocean currents cause rainfall.*
- *Cold ocean current lead to drought.*
- *They flow in a particular direction.*

## A MAP

OCEAN CURRENTS AROUND AFRICA (Fountain primary school SST pupil's book 7 page 56)



## Global warming

**Global warming** refers to the constant rise in temperatures throughout the world.

Which gas is the most important single contributor to global warming? **Carbon-dioxide**

- It takes the biggest part of the green house gases in the atmosphere.
- Green house gases prevent heat from escaping into the space. They act as a blanket.
- The heat which is trapped causes a rise in world temperatures.
- The increase of carbon – dioxide and other pollutants in the atmosphere is due to human activities.

### ***Human activities that cause global warming***

- *De forestation*
- *Draining of wet –lands*
- *Industrialization*
- *Bush burning.*

### ***Effects of global warming***

- *It causes changes in climate*
- *It causes changes in sea level.*
- *The sea gets warmer and expands which causes the level of water to rise.*
- *It causes the snow to melt which increases the water levels in rivers, lakes and seas.*
- *It may lead to floods due to melting snow.*

### ***How floods can be controlled around rivers***

- *Constructing flood banks.*

### ***Activity***

1. *State two reasons for the increase of water levels in sea, lakes and rivers.*
2. *What human activities can result into increased carbon –dioxide in the atmosphere?*
3. *How can increased population and urbanization lead to global warming?*
4. *Define global warming.*
5. *Which gas is the major cause of global warming?*
6. *How do plants control global warming?*

<b><i>Date</i></b>	<b><i>Class</i></b>	<b><i>Time</i></b>	<b><i>Subject</i></b>	<b><i>No of pupils</i></b>

***TOPIC: The climate of Africa***

***SUB TOPIC: Effect of climate on people***

***LANGUAGE COMPETENCES:***

- *Supply*
- *Global warming*
- *Flood banks*
- *Deforestation*
- *Industrialisation*

### **Effects of climate on people**

- Climate affects people more than any other element in their physical environment
- Their energy, health, mental strength, comfort and physical appearance are all affected by the state of weather and climate.

### **How climate affects people's dressing.**

- People who live in desert areas wear light and white clothes to reflect heat from the sun.
- During cold weather people wear thick clothes to obtain warmth.

### **Style of building**

- In hot areas, buildings are painted white to reduce heat.
- In Desert areas houses are built with flat roofs to prevent the roofs from being blown off by wind.
- In areas which receive heavy rainfall, people build houses with slanting roofs to enable the flow of water.

### **Types of food people eat**

- In cold areas, people eat fatty foods to keep them warm.

### **Trade**

- During hot days, cold drinks are in high demand.
- During cold days, people buy thick clothes

### **Health**

- Warm conditions favour the growth and transmission of bacteria which promote disease causing organisms.
- Cold places, high altitude and low pressure weaken people's resistance to diseases.
- Fresh air, sunshine and moderate humidity strengthen people's resistance to diseases.

### **Effects of climate on economic life**

- Climate affects the sales and prices of human produce.
- In cold seasons, thick clothes sell more
- In cold days, electricity supply is increased.
- In very hot seasons, light clothes, ice cream and soft drinks sell highly.

### **Effects of climate on communication and transport**

- Transport on land, water and air becomes difficult during some seasons.

### ***Effect of climate on agriculture***

- Some areas with drought do not support plant growth.
- Some climatic conditions like rainy support plants growth.
- In areas with reliable rainfall, crop cultivation is carried out.

### ***How people affect the environment***

*People use the resources in their environment in order to survive, sometimes they over use them.*

### **TOPICAL TEST (CLIMATE)**

1. *What is climate?*
2. *What name is given to the scientific study about weather?*
3. *State any one difference between weather and climate.*
4. *Mention the two aspects of climate.*
5. *How is a wind vane important to farmers?*
6. *Give any two delicate weather instruments kept in the Stevenson screen.*
7. *Why is a Stevenson screen painted white?*
8. *Mention the weather element that may result into floods if it comes in excess.*
9. *Give any two dangers of floods to people.*
10. *Give any one way people who live along R. Nile protect themselves against floods.*
11. *Why is road transport always difficult in rural areas during the rainy season.*
12. *Name the weather instrument used to measure air pressure.*
13. *Give the major reason why some parts of a rain gauge are sunk in the ground.*
14. *Apart from harvesting, give two other activities farmers do during sunny weather.*
15. *What are ocean currents?*
16. *Mention the type of ocean currents.*
17. *Give any four factors that influence climate.*
18. *State any two climatic regions experienced in Africa.*
19. *Which type of rainfall is received in mountainous areas?*
20. *In which units is rainfall measured?*
21. *What are isobar?*

<b>DATE</b>	<b>CLASS</b>	<b>TIME</b>	<b>SUBJECT</b>	<b>ENR</b>

**TOPIC: Vegetation of Africa**

**SUB TOPIC: Location and names of vegetation types of Africa**

*Vegetation is the plant cover of an area*

***Classes of vegetation***

*Natural Vegetation*

## *Planted Vegetation*

### *Components of Vegetation*

*Grass*

*Trees*

*Flower*

## **NATURAL VEGETATION**

*What is natural vegetation? This refers to plant life which grows by nature*

## **PLANTED VEGETATION**

*This refers to plant cover of an area planted by man.*

### **Types of Natural Vegetation**

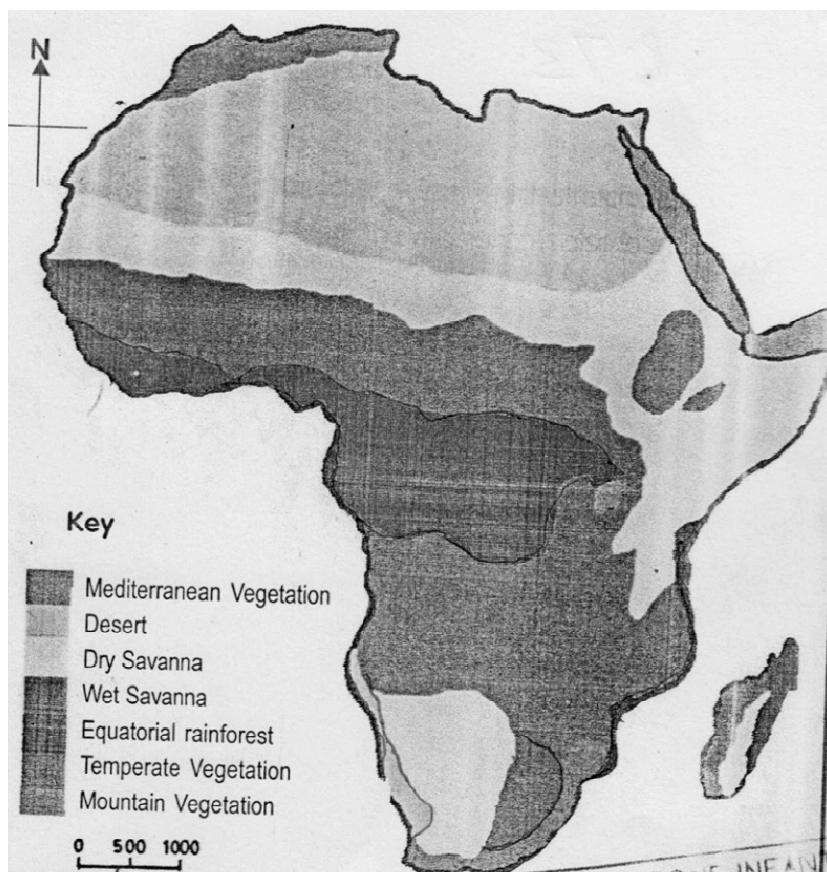
- Tropical rain forest/Equatorial forests
- Mangrove Forests
- Mountain vegetation
- Savanna vegetation
- Semi Desert vegetation
- Desert vegetation

- Temperate grassland / High velocity
- Mediterranean vegetation

### **Tree Species in Planted forests**

- Eucalyptus
- Fir
- Cedar
- Pine
- Podo

*A map of Africa showing the location of vegetation types / zones*



## ***Equatorial rainforest***

*They are called so because they grow in areas which receive plenty of rain fall.*

*They grow in Equatorial climatic regions.*

### **Characteristics of Equatorial rainforest**

- *Forests have tall, thick and evergreen trees*
- *Trees have broad leaves*
- *Trees have buttress roots standing above the ground.*
- *Tree trunks are straight and have branches at their lower parts*
- *Trees have hard wood*
- *They receive rainfall throughout the year*
- *The vegetation grows in different layers called canopies*

*i.e.*

- i. *Under canopy*
- ii. *Main canopy*
- iii. *Emergent*

### ***Examples of hard wood trees in equatorial rainforests***

- *Mahogany*
- *Rose wood*
- *Sepele*
- *Green heart*
- *Troika (Mvule)*
- *Ebony*

*They are all used to make furniture*

### ***Examples of countries in Africa with Equatorial rain forests.***

- |                                   |                     |
|-----------------------------------|---------------------|
| • <i>DR. Congo</i>                | • <i>Uganda</i>     |
| • <i>Central African Republic</i> | • <i>Senegal</i>    |
| • <i>Gabon</i>                    | • <i>Tanzania</i>   |
| • <i>Cameroon</i>                 | • <i>Madagascar</i> |
| • <i>Sierra leaone</i>            | • <i>Mozambique</i> |

### ***Economic activities in Tropical rainforests***

- *Lumbering*
- *Hunting*
- *Tourism*
- *Farming (on small scale)*

### ***Exercise***

1. Define the following terms

*Vegetation*

*Natural vegetation*

*Planted vegetation*

2. State two examples of hard wood trees found in equatorial rainforest.
3. Define the term canopy.
4. Name the four different layers of a tropical rains forest.
5. Give one examples of a country in Africa where we find equatorial rain forests.

DATE	CLASS	TIME	SUBJECT	ENR

***TOPIC:***Vegatation of Africa

***SUB TOPIC:***Location and names of vegetation types of Africa

### ***MANGROOVE FORESTS/SWAMPS***

- This type of natural vegetation is mostly found in low lying areas.
- They are found on the coast /Western, Eastern and South Eastern coast of Africa.
- They are also found in the Western part of Madagascar
- They can also grow in salty waters

***Characteristics of mangrove forests (swamps)***

- They have hard wood trees
- ***They provide water proof timber***
- They grow in water logged areas.
- They can also grow in salty waters.

***Examples of African countries with Mangrove forest***

- i. Tanzania
- ii. Kenya
- iii. Mozambique
- iv. Madagascar

v. *Ghana*

vi. *Mozambique*

**Economic importance of mangrove forests.**

1. *They provide water proof timber used in ship building*
2. *They attract tourists who bring income*
3. *They are sources of income through timber export.*

**Note:**

*Mangrove forests are common along the coast of East and West Africa.*

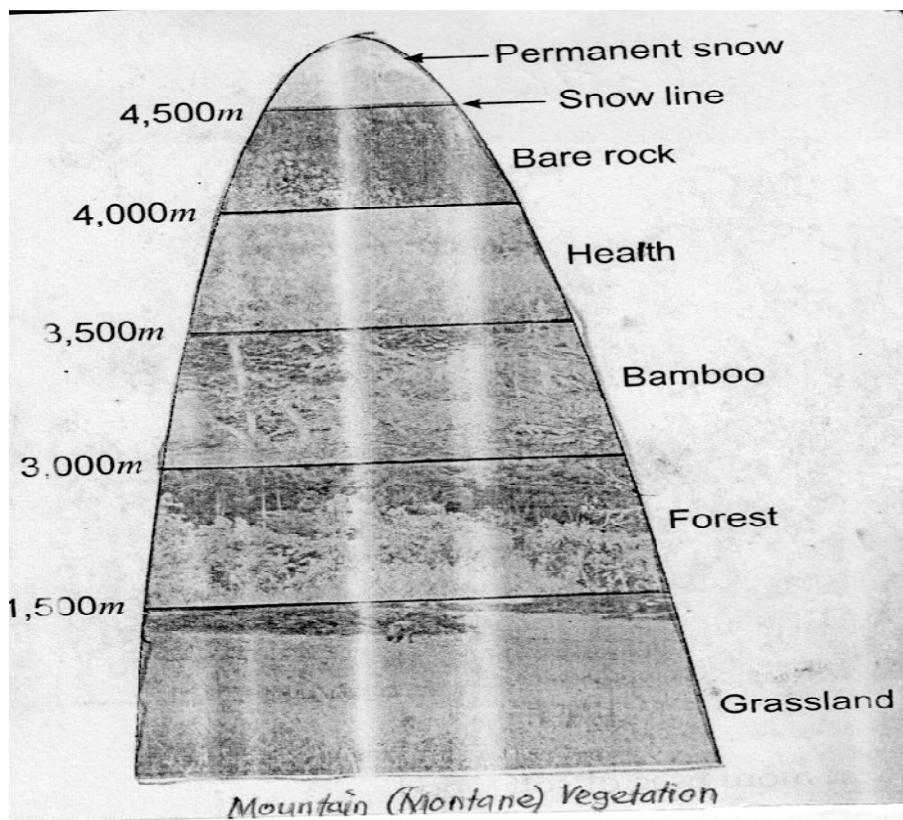
**Mountain vegetation**

- *It is also called montane vegetation*
- *It is found on mountainous areas.*
- *It changes with change in altitude*

**Types of vegetation on mountains.**

1. *Savanna vegetation*
2. *Tropical rain forest*
3. *Bamboo*
4. *Health and moreland*
5. *Bare rocks*
6. *Snow*

## AN ILLUSTRATION SHOWING MONTANE VEGETATION (MK SST PUPIL'S BK 7)



### Areas with mountain vegetation

*Around Mt. Elgon*

*Around Mt. Kilimanjaro*

*Around Mt. Rwenzori*

*Around Drakensberg mountain*

*Within Ethopian highlands*

### Economic activities carried out on mountainous areas

1. Lumbering
2. Tourism
3. Hunting
4. Farming
5. Mining
6. Quarrying

## **ACTIVITY**

1. Name the main factor that affects montane vegetation.
2. Why does montane vegetation grow well on the windward side of the mountain?
3. Where in East Africa do we find mangrove forests?
4. State the type of wood commonly got from mangrove forests.
5. Why are mangrove forests common along the coast of West Africa?
6. How does mangrove vegetation support the fishing industry?

## **Lesson Evaluation**

DATE	CLASS	TIME	SUBJECT	ENR

**TOPIC:**Vegetation of Africa

**SUB TOPIC:**Savanna

Savanna is a large area of grass with scattered trees.

### **Spelling**

- Shed
- Transpiration
- Deciduous
- miombo

### **TYPES OF SAVANNA**

Wet Savanna

Dry Savanna (Wood land)

### **WET SAVANA**

This type of Savanna receives a reasonable amount of rainfall per year.

It is mostly found in West Africa , Central Africa, East and Southern Africa.

### **DRY SAVANNA**

It is also called a wood land or wooded savanna.

It experiences a long dry season and receives little rainfall.

The wooded Savanna of Africa is called the Miombo Wood land, shamba forests Kenya.

### **Example of African Countries with the wooded Savanna**

Zambia

Tanzania

Mozambique

Malawi

Madagascar.

Kenya

### **Economic value of wooded savanna**

1. *Source of timber sold for money*
2. *Promotes tourism*
3. *Used for bee keeping*

### **Characteristics of Savanna grasslands**

- *The grasses have long roots to grow to about 2 metres.*
- *Grass turns yellow and dry during dry season but grows tall when it rains.*
- *It consists of thorny bushes and short shrub.*
- *They have tall grass and scattered trees.*
- *Most trees shed their leaves during the dry season (deciduous trees) to reduce the rate of transpiration).*

### ***Economic activities carried out in savanna grasslands***

*Farming*

*Pastoralism*

*Mining eg copper in Zambia / DRC, Coal in Zimbabwe.*

*Industrialization*

*Tourism*

### **QUESTIONS**

1. *What are deciduous trees?*
2. *Why does deciduous trees shed off their leaves during the dry season.*
3. *State two characteristics of savannah grasslands*
4. *Mention the two type of Savannah vegetation.*
5. *What name is given to the wooded savanna of Africa?*
6. *How does Savannah promote tourism in Africa?*
7. *How do livestock farmers depend on Savannah grasslands?*
8. *Why do trees in savanna vegetation have long roots?*

DATE	CLASS	TIME	SUBJECT	ENR

**TOPIC:** Vegetation of Africa

**SUB TOPIC:** Location and names of vegetation types in Africa.

### **SEMI DESERT VEGETATION**

These are areas bordering the major deserts and the short grass Savannah lands.

#### **Characteristics of Semi desert Vegetation**

- They have scattered short grasses and thorny trees.

#### **Economic activities in semi deserts**

- Mining
- Farming under irrigation

### **DESERT VEGETATION**

- The land is covered by bare rock with sand dunes
- The mounds of sand in deserts are called **Dunes**.
- Water can only be found in places called **Oases**
- Trees that grow in deserts have thick bark and thin leaves to reduce water loss through transpiration

### **CHARACTERISTICS OF DESERT VEGETATION**

1. It is made up of sand dunes
2. Trees have thick barks
3. Trees have thin and thorny leaves.
4. Vegetation is formed along the oases.

#### **Examples of plants that grow in deserts**

- Palm dates
- Barley
- Baobab
- Cactus trees
- Acacia

### **EXERCISE**

1. What are sand dunes?
2. How are the cactus trees able to survive in the desert climate
3. Where can water be found in the desert
4. Why do trees in the desert area have thick hard barks?

5. Give one factor that enables trees in deserts to reduce the rate of transpiration.
6. Name the biggest desert in Africa
7. Identify any one example of a plant grown in deserts.

<b>DATE</b>	<b>CLASS</b>	<b>TIME</b>	<b>SUBJECT</b>	<b>ENR</b>

**TOPIC:** Vegetation of Africa

**SUB TOPIC:** Location and names of vegetation types in Africa

### *Spelling*

- *Cyprus*
- *Shrubs*
- *Baobab*
- *Cactus*
- *Mediterranean*

### **MEDITERRANEAN VEGETATION**

*This vegetation is found in N. west and S. West Africa.*

- *It is mostly made up of Wood land and scrub vegetation.*
- *It is made up of trees like*
- *Pine*
- *Rosewood*
- *Cyprus*
- *Cornifers*
- *These forests provide soft wood*

### **CHARACTERISTICS OF MEDITERRANEAN VEGETATION**

- *The trees have long deep roots which reach the water under ground.*
- *It has ever green trees and shrubs.*
- *Trees have waxy leaves to reduce transpiration.*

### **Countries with Mediterranean vegetation**

- *Algeria*
- *Morocco*
- *Tunisia'*
- *South Africa*
- *Libya*

### **TEMPERATE GRASSLANDS**

- *These are grasslands found in the high plateau of South Africa.*

- Temperate regions are found outside the tropics.
- They cover the area of Southern Trans -Vaal and Orange Free State.
- These grasslands in S. Africa are called the **velds**.
- The main activity on the velds in S. Africa is sheep rearing (Merino)
- The high velds are called so because they are found on the high plateau of Africa.

### **Characteristics of Temperate Grasslands.**

- The grass has short roots with long narrow leaves narrow.
- It has short grass.
- **Trees have hairy covering**
- It has tall and ever green trees.
- These features help them to survive in the dry conditions.

### **ACTIVITY**

1. Mention the breed of sheep reared in the temperate region.
2. Give two factors that favour sheep rearing in temperate region of South Africa.
3. Why are the high velds called so?
4. In which African country are the high velds found?
5. Give one product got from soft wood.
6. State two characteristics of temperate grasslands
7. What is agro-forestry?

DATE	CLASS	TIME	SUBJECT	ENR
	P.7		SST	

**TOPIC: Vegetation of Africa**

**SUB TOPIC: Factors that influence vegetation distribution in Africa**

### **Spelling**

- |                 |            |
|-----------------|------------|
| - Afforestation | - Draining |
| - Reclamation   | - Leaching |
| - Drainage      | - Bare     |

There are several factors that influence vegetation distribution in Africa.

### **They include**

- climate
- types of soil
- human activities

- *altitude*

## ***ALTITUDE***

*Mountains areas receive plenty of rainfall which encourages the growth of trees.*

*The higher you go on the mountain the less the vegetation and the lower you go the more the vegetation on a mountain. The wind ward side has a thick vegetation than the lee ward side. This is because the wind ward side receives plenty of rainfall while the lee ward side gets no rain.*

### **Rainfall( Climate)**

*Rainfall supports plant growth*

*Areas with plenty of rainfall have thick forests, those with moderate rainfall have grass lands while those with very little or no rainfall thought the year are semi deserts and deserts.*

*Thick forests are found in areas with heavy rainfall through out the year.*

*Swamps are found in areas with much water.*

*Savanna is found in tropical regions which have low rainfall.*

## ***EXERCISE***

1. *What causes differences in vegetation on a mountain?*
2. *Name the two sides of a mountain.*
3. *Define altitude.*
4. *How does climate influence vegetation distribution in Africa?*
5. *Why do we find less vegetation in areas far away from the Equator?*
6. *Name any four factors that influence vegetation distribution in Africa.*
7. *How does population increase affect vegetation distribution?*

<b><i>DATE</i></b>	<b><i>CLASS</i></b>	<b><i>TIME</i></b>	<b><i>SUBJECT</i></b>	<b><i>ENR</i></b>
	P.7		SST	

**TOPIC:Vegetation of Africa**

**SUB TOPIC: Factors that influence vegetation distribution in Africa**

### ***Spelling***

- *Modify*
- *Influence*
- *Convectional*

- *Habitat*
- *Fuel*

## ***HUMAN ACTIVITIES***

*Activities done by people on vegetation promote or destroy vegetation in an area.*

***Human activities that promote vegetation growth.***

- *Agro forestry*
- *Afforestation*
- *Re - afforestation*
- *Soil conservation*
- *Controlled lumbering*
- *Controlled grazing*

***Ways how vegetation is destroyed***

- *By over grazing*
- *By over cultivation*
- *By swamp reclamation*
- *By burning bushes*
- *By deforestation*
- *Industrialization*

## ***TYPES OF SOIL***

*Fertile soil support more plant growth than infertile.*

*Red laterite soils are good for tropical rain forests and savanna wood land*

*This red soil is highly leached*

*Define leaching.*

*Leaching is the washing down wards of soil nutrients.*

*Savannah and temperate grasslands grow on red soils rich in iron.*

*Desert soils have little vegetation apart from the oases which have many plants.*

***Exercise***

1. *Define leaching*

*Re-afforestation*

*Agro-forestry*

2. Apart from the poor climate, what other factor contributes to very little vegetation in the desert areas?
3. How do soil types influence vegetation distribution?
4. State two human activities which can destroy vegetation.
5. Give a reason why mountains have differing vegetation.

<b>DATE</b>	<b>CLASS</b>	<b>TIME</b>	<b>SUBJECT</b>	<b>ENR</b>
07/3/2011	P.7		SST	23

**TOPIC:** Vegetation of Africa

**SUB TOPIC:** Importance of vegetation to people and animals

#### **FORESTS:**

- They act as homes for wild animals and birds.
- They help in rainfall formation
- They create employment opportunities.
- They attract tourist who are a source of foreign exchange.
- They provide raw materials to paper industries.
- They provide herbs used for medicine.
- They provide timber for construction and furniture.
- They are a source of fuel.
- They make the soil fertile as thin decaying leaves add humus to soil.
- They provide people and wild animals with fruits and roots.
- 

#### **Importance of savanna grassland**

- It is used for setting up game parks because of favourable conditions and the short grass.
- It provides people with grass for thatching houses.
- Bamboo from savannah wood land is used to make musical instruments and furniture.

*This region supports crop farming and animal rearing on a large scale.*

#### **Importance of swamp vegetation**

- They purify water for domestic use

- *They provide raw-materials e.g. Papyrus*
- *They modify the climate of an area.*
- *Swamps also control over flooding.*
- *They are habitats for wild life e.g. birds.*
- *Swamps are good for farming.*
- *They act as grazing grounds*

***Effects of human activities on the natural vegetation.***

***They include:-***

- *They lead to soil erosion*
- *They lead to soil leaching*
- *Leads to changes in climatic patterns which result to low rainfall.*
- *Leads to global warming*
- *Leads to the expansion of the deserts and semi-desert e.g. in (chad)*

***Exercise***

1. *State two importance of swamp vegetation to people*
2. *Define forests*
3. *How do forests modify the climate of the place?*
4. *Clarify how the savannah grassland is economically important.*
5. *What is swamp reclamation?*
6. *Give any two causes of swamp drainage.*

DATE	CLASS	TIME	SUBJECT	ENR

**TOPIC: Vegetation of Africa**

**SUB TOPIC: Importance of game parks**

***Define game parks***

*A game park is a gazetted area for the conservation of wild life.*

*It may also be an area where wildlife is protected by government laws.*

***Groups of animals found in Africa***

- *Carnivores*
- *Herbivores*
- *Omnivores*

**Carnivores**

*These are animals which feed on the fresh.*

***Examples***

- *Lions*
- *Tigers*
- *Leopards*
- *Cheetahs*
- *Africa rock pythons*

**Herbivores**

*These are animals which eat grass*

***Examples:***

- *Elephants*
- *Kobs*
- *Zebra*
- *Antelopes*
- *Giraffes*

## Omnivores

These are animals which feed on both grass and fresh.

### Examples

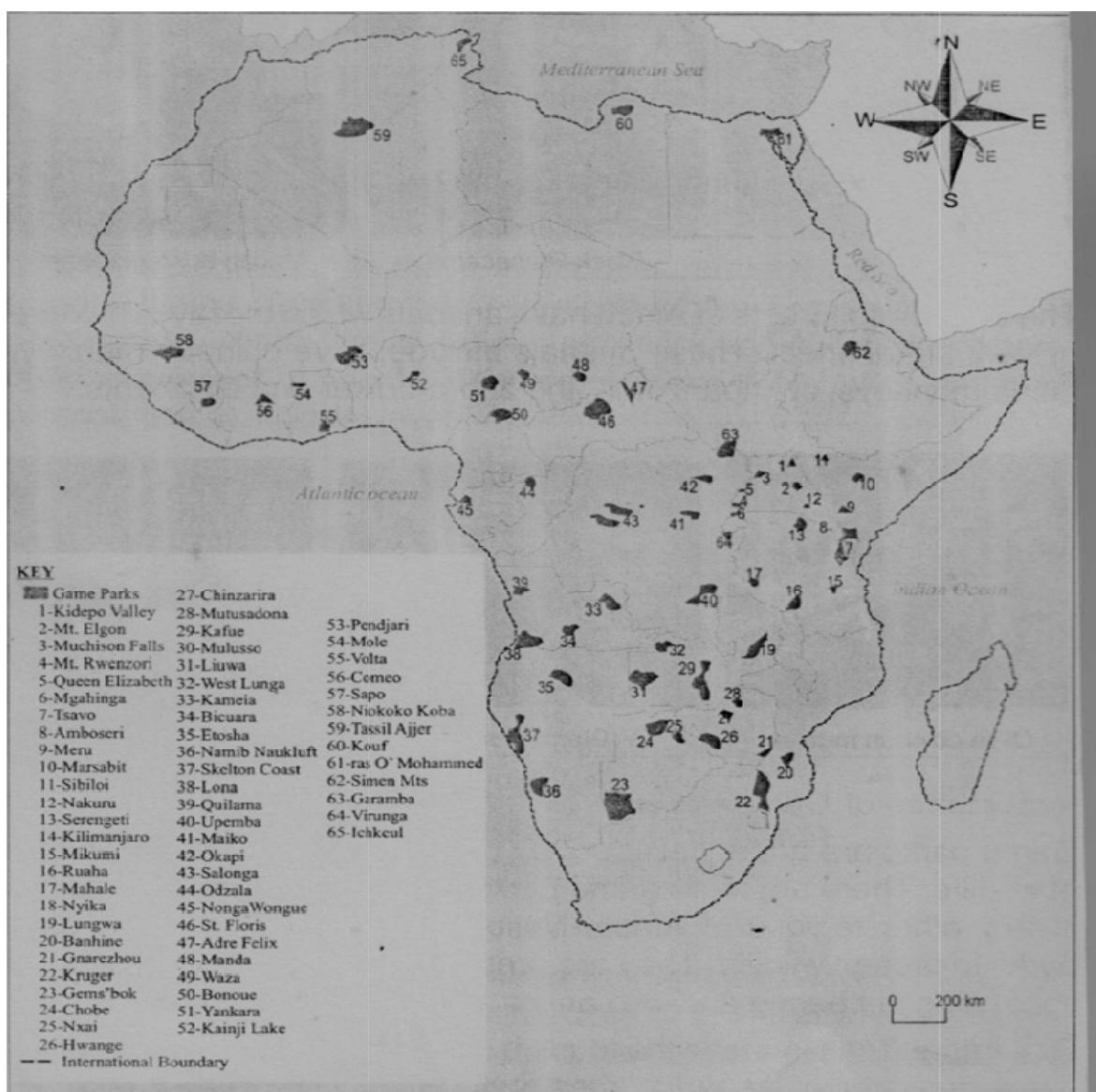
Warthogs (wild dogs)

Velvet monkeys

Patas monkeys

Ostriches /dogs, cats ,pigs, man.

## THE MAP OF AFRICA SHOWING GAME PARKS (Mk pupils book 7)



DATE	CLASS	TIME	SUBJECT	ENR

**TOPIC:** *Vegetation of Africa*

**SUB TOPIC:** *Importance of game parks*

### **Importance of game parks in Africa**

- They provide employment to people.
- They preserve wild life for future generation.
- They help to research on wild life.
- They led to development of roads in remote areas.
- They attract tourists who bring in foreign exchange.
- They promote relationships and co-operation between countries.
- They provide markets to locally made goods.
- They help to diversify the economy of various countries.

### **Problems faced by game parks in Africa**

- Game park encroachment
- Wild bush fires
- Poaching
- Animal diseases
- Drought

### **Solutions to the above problems**

- By educating people on the dangers of game park encroachment
- By training and employing more game rangers and wardens to improve on security
- Through arresting and punishing poachers
- By improving on veterinary services to prevent animal diseases.

### **Exercise**

1. Give the importance of game parks
2. State the problems faced by game parks.
3. Give the difference between game parks and game reserves
4. Name the biggest game park in
  - i. Africa
  - ii. East Africa
  - iii. Uganda

<i>Date</i>	<i>Class</i>	<i>Time</i>	<i>Subject</i>	<i>No. of children</i>

### ***Spelling***

- *Pleasure*
- *Government*
- *Warden*
- *Habitat*

### ***TOURISM***

*Tourism is the act of travelling to see new and interesting places for pleasure and rest.*

*It is called an industry because it earns income to the government.*

*It is also called an invisible trade export because it does not involve the physical exchange of goods yet it earns income to the government.*

### **Major tourist attraction in Africa**

- *Wild life*
- *Physical features*
- *Historical sites*
- *Beaches*
- *Vegetation*
- *Climate*
- *Culture*

### ***Importance of tourism***

- *It is a source of income*
- *It promotes research*
- *It creates employment to people*
- *It promotes co-operation among countries*
- *It encourages government to build good roads in villages.*
- *It promotes the protection of wild life.*

### **Problems facing the tourism industry**

- Poor hotels and lodges.
- Poor transport and communication.
- Disease outbreaks in game parks.
- Having the same animal species with neighbouring countries which creates competition.
- Bush fires which destroy animal's habitats and grass.
- Shortage of game wardens.
- Prolonged droughts force animals to migrate to parts which have pasture and water.
- African countries have not yet developed their internal flights.
- Lack of advertisement in international media.
- Poor managerial skills of workers in the tourism industry.

### **Ways of improving the tourism industry.**

- By improving on hotels and lodges
- By improving on security
- By opening up more tourist attraction centers
- By improving on roads
- By protecting the existing game parks and reserves
- By preserving over culture
- By providing enough security to tourists.

### **Exercise**

1. Define the following terms

Game parks

Game reserves

Tourism

2. Why is tourism called an industry?

3. Mention any two tourism attraction found in Africa

4. Why is tourism called invisible trade?

5. What is tourism?

<b>DATE</b>	<b>CLASS</b>	<b>TIME</b>	<b>SUBJECT</b>	<b>ENR</b>
22/3/2011				

**TOPIC:** *Vegetation of Africa*

**SUB TOPIC:** *Animals found in different vegetation zones.*

*Vegetation greatly influences animals and their grazing patterns.*

*Animals prefer to live in vegetation which is suitable for their feeding and protection.*

*Some prefer regions where the vegetation is thick and ground movement by people is limited*

### **Equatorial vegetation**

*This is vegetation has thick forest.*

*They provide shelter and reliable food supply to animal.*

***Examples of animals that live on the equatorial vegetation include.***

- *Monkeys, chimpanzees, Gorillas*
- *Baboon, elephant, lions, Giraffes etc*

### **Tropical grassland**

*Tropical grassland (savannah) have plenty of grass and scattered trees.*

*That is why most game parks are located in it.*

***Examples of animals found there***

- *Kobs*
- *Leopards      Hyena    Tigers    Rabbits*
- *Wild Dogs Snakes*
- *Squires*
- *Cheetals*

*Some times, these animals migrate during dry seasons in search of pasture, water and shelter.*

### **Semi-Desert and desert**

*Animals found in semi-desert areas include:-*

<i>Snakes</i>	<i>squirrels</i>
<i>Puff orders</i>	<i>cheetahs</i>
<i>Horned udders</i>	<i>Kobs</i>
<i>Newts</i>	<i>Insects</i>
<i>Ostriches</i>	<i>Camels</i>

*Many of these animals can be found in Kruger National park and Kalahari Desert.*

### **REASONS WHY ANIMALS LIVE IN DIFFERENT VEGETATION ZONES**

1. *Equatorial forests – Presence of thick forests for reliable shelter and food.*
2. *Savanna grassland – Have plenty of pasture and scattered trees*
3. *Semi desert and desert vegetation*

### ***Exercise***

1. *Give reasons why animals live in different vegetation zones*
2. *Name the animals found in the following vegetation zones.*
  - i. *Equatorial forests*
  - ii. *Savanna grassland*
3. *Give two reasons why most game parks are located in the Savanna grassland.*

<b>DATE</b>	<b>CLASS</b>	<b>TIME</b>	<b>SUBJECT</b>	<b>ENR</b>

**TOPIC:***Vegetation of Africa*

**SUB TOPIC:***Population distribution in relation to vegetation and reasons why it differs in different zone*

1. *equatorial forests*

*Have few people due to unfavourable conditions like;*

- *being very hot and wet.*
- *poor transport and communication*
- *presence of dangerous wild animals*

- presence of disease vectors like tsetse flies, mosquitoes.
- presence of crop pests and rodents like monkeys, squirrels.

## **2. Desert vegetation**

- Is sparsely populated due to poor climatic conditions apart from the oases and along rivers.

## **3. Savana grassland**

- Has a large population of people because of enough open space for farming and settlement.
- In areas with dense forests, there are few people who live by subsistence farming and shifting cultivation

## **4. Mediterranean**

Has high population because it is thick and favourable for human living.

## **5. Miombo woodland**

Are sparsely populated due to presence of tsetse flies, mosquitoes and is too dry for farming.

### **Exercise**

1. Why is the Miombo woodland sparsely populated?
2. Name the group of people who live in the Huri forest.
3. Why is crop farming difficult in the Equatorial rainforests?
4. What is the main economic human activity in the Equatorial rain forests?
5. Mention one way vegetation modifies climate.
6. Why do trees in natural forests have hard woods?

Date	Class	Tim	Subject	No. of children

**TOPIC** : *Vegetation of Africa*

**SUB TOPIC :** *Effects of population on vegetation*

- *Due to population increase, the rate at which vegetation is destroyed is high*
- *People use primitive methods of exploiting resources to meet their needs such as swamp drainage, over grazing, bush burning, over cultivation, shifting cultivation, deforestation.*
- *This results into loss of vegetation*

#### **Effects of population size on vegetation**

1. *Big population -leads to increased deforestation due to high demand for land for farming, settlement and wood fuel.*
2. *Small population – are as with small population have thin vegetation.*

#### **Ways of conserving the natural vegetation**

- *By protecting plant species in their environment.*
- *By sensitizing people in on values of vegetation*
- *Through legislation*
- *By providing alternation sources of fuel like solar, Biogas electricity.*
- *By creating more forest resources*
- *People should practice population control through family planning*
- *Encouraging afforestation and re-afforestation*
- *Teaching people better farming methods.*

#### **Ways people misuse the resource in the environment**

- *They carry out overgrazing*
- *Through over cultivation*
- *Through draining wetlands*
- *Through de forestation*
- *Through pollution*
- *Through clearing the land*

### ***How the above activities affect the environment***

- *They lead to environmental degradation*
- *This is the lowering of the quality of the environment.*

### ***Bad effects of degrading the environment***

- *It leads to loss of soil fertility*
- *It leads to soil exhaustion.*
- *Leads to soil erosion*
- *Leads to decrease in rainfall*
- *Leads to global warming.*
- *Leads to desertification.*
- *Desertification is when land formerly covered by vegetation turns into desert.*
- *It is when an area experiences conditions similarities to those prevailing in Deserts.*

### ***Ways of conserving the environment***

- *Sensitizing people on its uses and how to conserve it.*
- *Governments should provide enough cheap electricity to reduce the number of trees cut.*
- *Encouraging people to use less fuel consuming materials such as coffee husks, banana peels, biogas and solar energy.*
- *Teaching people the importance of planting trees to replace trees which have been cut.*
- *Agro forestry should be encouraged.*
- *By conserving the existing forest and wetlands.*
- *People should practice.*

### ***Activity***

1. *Suggest two dangers of environmental degradation*
2. *State one factor that can lead to soil exhaustion*
3. *Which climatic conditions are unfavourable to transport on land, water and air?*
4. *How can people adapt to;*
  - a) *Cold climate*
  - b) *Hot climate*
5. *State two ways climate affects the economic life of the people in your country.*

6. How does climate determine people's culture?
7. State two reasons why people need shelter.
8. Explain two different ways in which climate affects the people's way of dressing.
9. Explain how population increase affects vegetation
10. Suggest ways of conserving the natural vegetation
11. Give any two reasons why people practice deforestation

### **TOPICAL TEST FOR VEGETATION**

1. What is natural vegetation?
2. State any one reason why trees in rain forests grow tall.
3. Give any two examples of planted forests in Uganda.
4. Mention the natural vegetation that supports the ship building industry.
5. What is environment?
6. What name is given to the wooded savanna in central Tanzania?
7. Give any two characteristics of natural vegetation
8. Mention any two tree species in natural forests.
9. What is a forest?
10. How is vegetation important to animals?  
11.  Give the importance of the feature.
12. Why do animals live in the different vegetation zones?
13. Why do planted trees have soft wood?
14. Give any one effect of overgrazing.
15. Why does vegetation grow around the oases?
16. Write short notes on the following.
  - A) Swamp reclamation.
  - B) Agro-forestry
  - C) Afforestation.
17. What factor influences vegetation distribution on mountains.
18. How does wood pulp and timber differ in importance?
19. Why is animal keeping extensively carried out in savanna regions?
20. How does improved accommodation promote tourism?