

## **P.7 SOCIAL STUDIES WITH RELIGIOUS EDUCATION**

### **TERM ONE**

#### **TOPIC 1:**

#### **TOPIC 1: LOCATION OF AFRICA**

##### **SUB TOPIC: Location and position of Africa:**

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

#### **LOCATION OF AFRICA**

The term location refers to a place where something/someone is found.

It can also mean the process of finding the position of something / someone.

Africa is one of the seven continents of the world.

#### **Definition of 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**.

#### **More information on continental drifting:**

The theory of continental drift- by **Alfred Wegner**, a German Meteorologist and Geophysicist.

**Continental drift** means the relative movement of continents to and away from each other- how continents shift positions on the earth's surface, Abraham Ortelius- 1596.

According to Wegner, all the continents formed a single continental mass and a mega ocean surrounded the continent.

The super continent was called **Pangaea** (Pan= all + Gaea= earth).

The Pangaea was surrounded on all sides by an extensive water mass called **Panthalasa** (Pan= all + Thalasa= oceans), which simply means "all oceans".

This is believed to have happened around 200 million years ago to form:

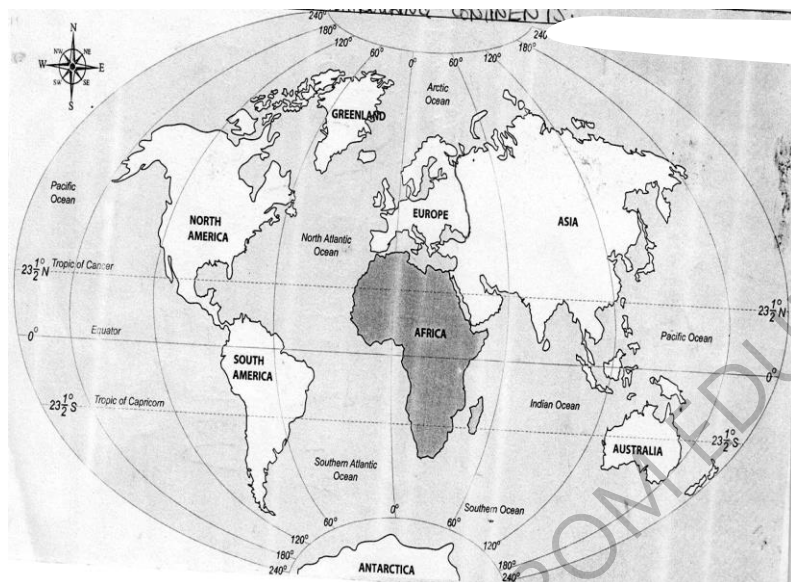
1. **Laurasia**- North America, Greenland, and all of **Eurasia**
2. **Gongwanaland**- South America, Africa, Australia and Antarctica.

These two blocks were separated by a long shallow inland sea called **Tethys Sea**. The present shapes are as a result of fragmentation of Pangaea by **rifting** and **drifting** apart of the broken land masses.

### Examples of continents in the world in order of their sizes.

| Continent        | Area covered (in km <sup>2</sup> ) |
|------------------|------------------------------------|
| 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



**Note:** Of the seven continents, **Antarctica** is the only continent that is not inhabited by people.

- **Antarctica** is not inhabited by people because it is **too cold for human settlement**.

### Five oceans that surround the world

- An **ocean** is a large area of land covered by water.

**The five major oceans are:**

- **Pacific Ocean**- The largest.
- **Atlantic Ocean**.
- **Indian Ocean**.
- **Arctic Ocean**.
- **Antarctic (Southern) Ocean**.

**Other water bodies that border Africa.**

- **Mediterranean Sea** in the North.
- **Red sea** in the North-East
- **Suez Canal** in the North-East

### **Ways Africa is unique (different) from other continents.**

- Africa has the largest number of countries and offshore islands.
- Africa is the hottest continent with the highest recorded temperature hitting 58<sup>0</sup>c at Aziza in Libya on 13/09/1922.
- Africa has the hottest desert, the Sahara Desert that is 8,400,000 km<sup>2</sup>.
- Africa has the largest manmade lake in the world, L. Volta (8,842 km<sup>2</sup>).
- Africa has the longest river in the world, R. Nile (6,670km).
- Africa has the shortest people in the world i.e. the Pygmies who live in the **Ituri** Forests of the DR Congo.
- Africa is the leading producer of minerals e.g. gold, diamonds etc.
- Africa has the longest canal i.e. the Suez Canal that is 162 km long and 16 metres deep.
- Africa has the highest number of landlocked countries.

### **Reasons why Europeans took long to enter the interior of Africa.**

- Europeans feared to cross thick forests at the entrance of Africa.
- The Europeans feared attack from hostile tribes like the Nandi and Masai in East Africa.
- The Europeans feared to cross deserts like Sahara desert.
- Africa had no clear routes linking to its interior.
- The Europeans feared attack from dangerous wild animals.

### **Reasons why the Europeans called Africa a dark continent.**

- The Europeans knew little about the interior of Africa.
- Africa had no clear routes linking to its interior.

### **Activity.**

1.What is a continent?

.....

2. Mention the largest continent in the world.

.....

3. Which is the smallest continent in the world?

.....

4. Mention the five oceans that surround Africa.

(i).....(ii).....

(ii).....(iv).....

5. Which is the biggest ocean in the world?

6.State two reasons why it took long for the Europeans to enter the interior of Africa.

i).....

ii).....

7.Give any two seas that border Africa.

(i).....(ii).....

8. Which water way connects the Red sea to the Mediterranean Sea?

9. For which two reasons did the Europeans called Africa a dark continent?

(i).....

(ii).....

10.In which two ways can we identify Africa as a unique continent?

(i).....

(ii).....

11. Which continent is not inhabited by humans?

12. Give a reason why the above continent is not inhabited by people

## Lesson 2

### Ways of locating places on a map.

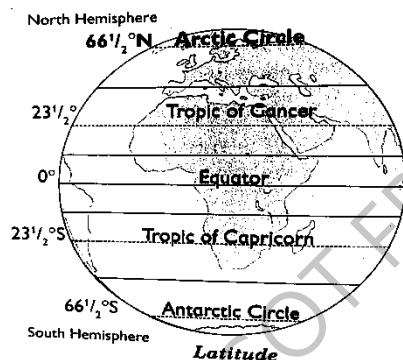
- By using grid reference. This is the method of locating places using lines of longitude and latitude.
- By using neighbouring countries/continents.
- By using physical features.
- By using landmarks.
- By using a compass direction.
- By using the position of the sun.
- By using the Global Positioning System(GPS)

### Locating Africa using lines of latitude and longitude.

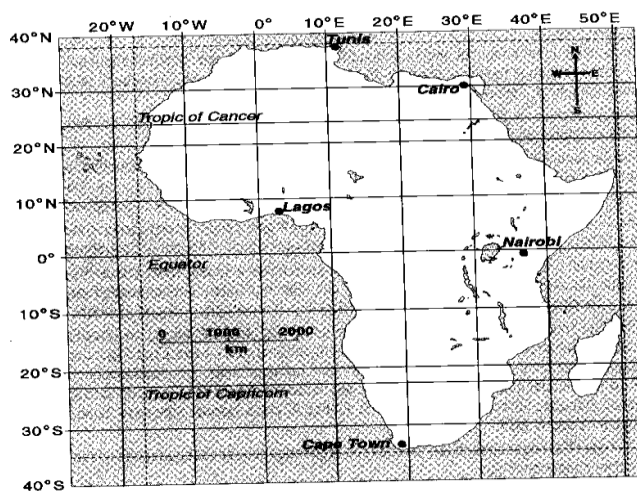
- **Lines of latitude** are imaginary lines drawn on a map from East to West.
- Lines of latitude are also called **parallel lines**.
- Lines of latitude are called parallel lines because **they don't meet**.
- Lines of Latitude and Longitude are called imaginary lines because **they are not seen with naked eyes**.
- **Latitude** is a distance of a place North or South of the Equator.
- Lines of latitude are measured in **degrees**.
- Africa lies between lines of latitude marked **37°North** and **35°South**.

### Important lines of latitude that cross Africa.

- The Equator  $0^{\circ}$
- Tropic of cancer  $23\frac{1}{2}^{\circ}$  N.
- Tropic of Capricorn  $23\frac{1}{2}^{\circ}$  S.
- Arctic circles  $66\frac{1}{2}^{\circ}$  North.
- Antarctic Circle  $66\frac{1}{2}^{\circ}$  South.



### A map showing the location of Africa using Grid reference.



## The Equator.

- It is the **major** line of latitude.
- The Equator divides the world into two Equal parts called **hemispheres**.
- A **hemisphere** is half of the world divided by the Equator or the Prime Meridian.
- Part of the world South of the Equator is called the **Southern hemisphere**.
- Part of the world North of the Equator is called the **Northern hemisphere**.

**Note.** Lines of latitude South of the Equator are marked **degrees south** because they are located South of the Equator (Southern hemisphere).

- Lines of latitude North of the Equator are marked **degrees North** because they are located in the Northern hemisphere.

## Why the Equator is marked 0°

- It is the starting point for all lines of latitude.
- The Equator is the line of latitude from which all other lines of latitude are numbered.

## Countries in Africa crossed by the Equator.

- Garbon.
- Democratic Republic of Congo.
- Congo Brazzaville.
- Uganda.
- Kenya .
- Somalia.

## Importance of the Equator.

- The Equator helps to determine the climate of an area.
- The Equator shows the position of a place North or South of it.
- The Equator is used to locate places on a map.

## Activity.

1. Give the meaning of the following terms.

(i) Lines of latitude.....

.....

(ii) Latitude.....

.....

(iii)

Hemisphere.....

.....

2. Name any three lines of latitude that cross Africa.

(i).....

(ii).....

(iii).....

3. Give a reason why Africa is called a tropical continent.

.....

4. State a reason why the Equator is marked  $0^{\circ}$ .

.....

5. For which reason are lines of latitude south of the Equator are numbered degrees South?

.....

6. Name the neighbouring country of East Africa in the East that is crossed by the line of latitude marked  $0^{\circ}$ .

.....

7. Which country in East Africa is not crossed by the Equator?

.....

8. State one importance of the Equator to a map reader.

.....

9. Which line of latitude is marked  $23.5^{\circ}$  south?

.....

10. Mention any two countries in Africa located in both Northern and Southern hemisphere.

(i).....(ii).....

### Lesson 3

#### Equinox.

- **Equinox** is the period in the year when the sun is overhead the Equator.
- **Equinox** is the period in the year when the sun is overhead the Equator making days and nights equal in length.
- **Equinox** appears twice in a year i.e. 21<sup>st</sup> March and 23<sup>rd</sup> September.

#### Solstice

Is the period in the year when the Sun is overhead the Tropics.

#### **Types of solstice**

- **Summer solstice**-This is when the sun is overhead the Tropic of Capricorn.
- **Winter solstice**-This is when the sun is overhead the Tropic of Cancer.

#### **Cause of Equinox.**

- The revolution of the earth.

### **The revolution of the earth.**

- This is the movement of the earth around the sun.
- The revolution of the earth takes **365/366 days** (a year)
- In **March** and **September**, areas along the Equator are heated by the sun for long hours making them too hot and resulting in heavy rainfall due to high rates of evaporation and transpiration.

### **Effect of the revolution of the earth.**

- The revolution of the earth causes **seasons** (Winter and Summer).

**Note;** When the sun is overhead the Tropic of Cancer, it is **summer season** in the Northern hemisphere.

- The sun is overhead the Tropic of Cancer on 21<sup>st</sup> June every year.

### **Countries in Africa crossed by the Tropic of Cancer.**

- Mali.
- Algeria.
- Mauritania.
- Niger.
- Chad .
- Sudan.
- Egypt.

When the sun is overhead the Tropic of Capricorn, it is **summer season** in the Southern hemisphere.

- The sun is overhead the Tropic of Capricorn on 22<sup>nd</sup> December every year

### **Countries crossed by the Tropic of Capricorn.**

- Madagascar.
- South Africa.
- Namibia.
- Mozambique.
- Zimbabwe.

### **Rotation of the Earth.**

- This is the turning of the earth on its axis.
- An **axis** is an imaginary line that cuts through the earth from North Pole to South pole on which the earth rotates.
- The rotation of the earth takes **24hours**(one day)
- The **earth rotates from West to the East** this is why people in the East see the sun earlier than those in the West.
- The rotation of the earth is seen by the rising and setting of the sun.



### **Effects of the Rotation of the Earth.**

- The rotation of the earth causes day and night.
- The rotation of the earth causes the formation of tides.
- The rotation of the earth causes ocean currents.
- The rotation of the earth changes the direction of wind.

### **Activity.**

1. What is Equinox?

.....

2. What term is given to the movement of the earth around the sun?

.....

3. Give a reason why the people of Kenya see the sun earlier than those of Uganda.

.....

4. Mention the imaginary line on which the earth rotates.

.....

5. Name the months of the year when equinox occurs.

(i).....(ii).....

6. Give any two effects of the rotation of the earth.

i).....

ii).....

7. Give a reason why Africa is called a tropical continent.

.....

8. Which seasons are experienced when the sun is overhead the following lines of latitude?

(a) A line of latitude marked  $23\frac{1}{2}^{\circ}$ . .....

(b) Line of latitude marked  $23.5^{\circ}$  North.....

### **Lesson 4 Lines of longitude**

- **Lines of longitude** are imaginary lines drawn on a map from North Pole to South pole. **Longitude** is the position of a place East or West of the Prime Meridian. Lines of longitudes are also called **meridians**. The major line of longitude is called the Prime meridian/Green Wich meridian marked  $0^{\circ}$ .
- The **Prime meridian** is also called **Greenwich Meridian** because it crosses a town called GreenWich in London.
- In Africa, the Prime Meridian crosses a city called **Accra** in **Ghana**.
- Africa lies between lines of longitude marked  **$17^{\circ}$  West** and  **$52^{\circ}$  East**.

### Important lines of Longitude.

- The Prime Meridian / Greenwich Meridian marked  $0^\circ$ .
- The **International Date Line (IDL)** marked  $180^\circ$  East or West of the Green Wich.

### Note;

- The Prime Meridian divides the world into two hemispheres;
- **Eastern hemisphere** and **Western hemisphere**.

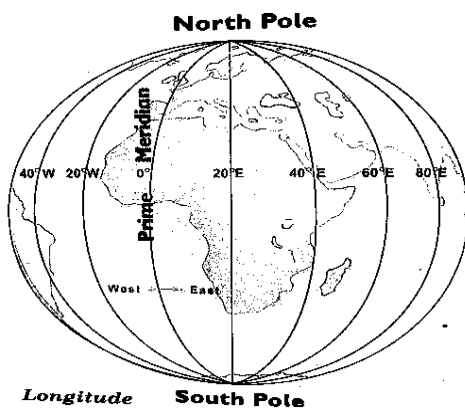
### Why the prime meridian is marked $0^\circ$

- It is the starting point for numbering all lines of longitude.

### Importance of the International Date Line (IDL).

- The International Date Line helps to determine days and dates.

### A globe showing Lines of Longitude.



### Importance of lines of longitude.

- Lines of longitude are used to tell time.
- Lines of longitude are used to locate places on a map.
- The Prime Meridian shows the position of a place North or South of it.

### Activity.

1. What does the term longitude refer to?

.....

2. Name two countries in Africa that are crossed by the Prime Meridian.

(i).....(ii).....

3. Give a reason why the Prime Meridian at times it called the Greenwich Meridian.

.....

4. What are lines of longitude?

.....

5. State a reason why all lines of longitude East of the Prime Meridian are marked degrees East.

.....

6. State the difference between lines of longitude and latitude.

.....  
.....

7. What other name is given to the lines of longitude?

.....

8. Name the only city in Africa crossed by the Prime Meridian.

.....

9. In which way are the International Date Line important to people?

.....

10. What term is given to the method of locating places using lines of longitude and latitude?

.....

11. Apart from locating places, give any other importance of lines of longitude.

.....

## Lesson 5

### How to use Grid Reference to locate places.

- The Equator shows if the country is in the Southern or Northern hemisphere while the Prime Meridian shows if the country is in the Eastern or Western hemisphere.
- Some countries are found in both Northern and Southern hemispheres.
- You can locate a country by identifying the last lines of longitude and latitude; the identified lines show the position of a country.

### Note.

- If you cross the International Date Line **Eastwards, you gain a day** while crossing the IDL **Westwards, you lose a day.**
- If you cross the Prime Meridian **Eastwards, you gain an hour** while **Westwards you lose an hour.**

### Activity.

1.Name any two countries in Africa that are found in both Northern and Southern hemisphere.

(i).....(ii).....

2.Mention any four countries in Africa that lie in the Northern hemisphere.

(i).....(ii).....

3.In which geographical region of Africa is Kenya located?

.....

4.State the most important imaginary lines that are used in locating places on a map.

i).....

ii).....

5.What is the direction of Uganda from Kenya?

.....

6.What evidence is there to show that Kenya lies East of the Prime Meridian?

.....

## Lesson 6

### **Other features associated with Africa:**

#### **1. Straits:**

- A **strait** is a narrow water passage between two landmasses.

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

- Strait of Gibraltar- NorthWest.
- Strait of Babel Mandeb – North East.

#### **Note:**

The **Strait of Gibraltar** joins Mediterranean Sea to the Atlantic Ocean.

The **Strait of Gibraltar** separates the continent of Africa from Europe.

The **Strait of Babel Mandeb** joins the Red sea to the Indian Ocean.

The **Strait of Babel Mandeb** separates the continent of Africa from Asia.

#### **2. Bay.**

- A **bay** is an area of the sea that is partly enclosed by land.

#### **Examples of Bays along the coast of Africa.**

| Bay           | Country      |
|---------------|--------------|
| Delagoa bay   | Mozambique   |
| Bengo bay     | Angola       |
| Ungwana bay   | Kenya        |
| St.Helena bay | South Africa |
| Alexander bay | South Africa |

#### **3. Gulfs:**

- A **gulf** is a large area of sea that is almost surrounded by land.

#### **Examples of gulfs in Africa.**

- Gulf of Aden- North East.
- Gulf of Suez –North.
- Gulf of Aqaba –North.
- Gulf of Guinea West.

**Note.**

- The **Suez Canal** joins the Red Sea to the Mediterranean Sea.
- The **Isthmus** through which the Suez Canal passes joins Africa to Asia.

**4. Isthmus:**

- An **Isthmus** is a narrow land connecting two landmasses that would otherwise be separated by water.

**5. Capes.**

- A **cape** is a piece of land that extends to the sea.

**Examples of Capes around Africa.**

- Cape Town and Cape of Good Hope – South Africa.
- Cape Verde – North West Africa.
- Cape Blanc-Tunisia.
- Cape Verga -Guinea
- Cape Agulhas-South Africa.

**6. Penisular** is a narrow piece of land penetrating into the sea.

**7. Canal.**

- A **canal** is a long straight water passage dug in the ground and filled with water for boats and ships to sail along.

**Suez canal:** is the major example of canals in Africa.

The **Suez Canal** was built by the **France** and the **British** in 1969 to promote trade between **Europe** and **India**

- **President Gemel Abdul Nasser** nationalized the Suez Canal to increase on income for Egypt and improve security.

**Importance of the Suez Canal.**

- The **Suez canal** promotes water transport between the Red sea and the Mediterranean Sea.

**Other Canals at the coast of Africa**

- Mozambique Canal.
- Zanzibar Canal.
- Mafia Canal.

**Activity**

1. Give any two features related to the continent of Africa.

(i).....(ii).....

2.How is a gulf different from a cape ?

.....

3.Name the biggest and oldest canal in Africa.

.....

4.Which water bodies separate Africa from the following continents?

(i) Africa from Europe.....

(ii) Africa from Asia.....

5.Which feature separates the continent of Africa from Asia ?

.....

6.Name the feature which joins the Mediterranean Sea to the Atlantic Ocean.

.....

7.State the main reason why the Suez canal was built.

.....

8.Which colonialists built the Suez canal ?

(i).....(ii).....

## **Lesson 7**

### **Island countries of Africa.**

- An **island** is piece of land that is completely surrounded by a water body.

### **Examples of island countries of Africa.**

- **Madagascar** – is the biggest island country in Africa.
- **Seychelles**-is the smallest country in Africa..
- Mauritius Island.
- Sao Tome and Principe Island.
- Comoros Island.

### **Ports along the coast of Africa.**

- A **port** is a long area at the coast with a harbor where ships load and offload goods.
- People who load and offload goods are called **Dockers**.
- People who carry luggage for others are called **porters**.
- Ports along the coast are called **coastal ports or seaports**.
- Ports located on lakes far from the coast are called **inland ports**.

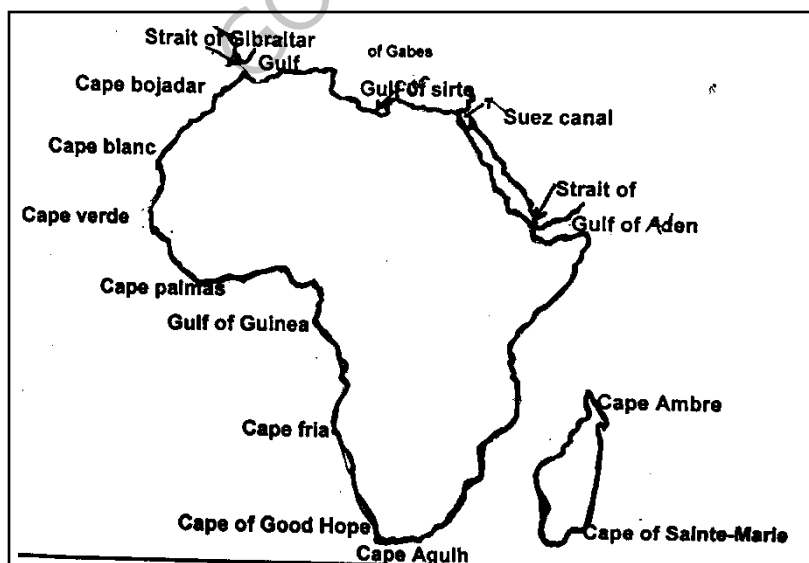
### Examples of seaports in Africa.

| Country      | Seaport / Coastal port                            |
|--------------|---------------------------------------------------|
| South Africa | Cape Town, Port Elizabeth, Port Durban            |
| Nigeria      | Port Lagos, Port Harcourt ,                       |
| Egypt        | Port Alexandria                                   |
| Algeria      | Port Rabat, Port Dakar, Port Conakry, Port Beira. |
| Kenya        | Port Mombasa                                      |
| Tanzania     | Port Dar-es-salaam                                |
| Sudan        | Port Sudan                                        |

### Examples of Inland Ports in Africa.

| Country  | Inland port                                 | Lake               |
|----------|---------------------------------------------|--------------------|
| Uganda   | Port Bell, Port Bukakata, Port Jinja,       | L.Victoria         |
| Tanzania | <u>Port Mwanza, Port Bukoba ,PortMusoma</u> | <u>L. Victoria</u> |
| Kenya    | Port Kisumu, Port Homa, Port Asembo         | L. Victoria        |
| Tanzania | Port Ujiji, Port Kigoma                     | L.Tanganyika       |
| Kenya    | Port Lamu                                   | L.Turkana          |
| Uganda   | Port Kagwara, Port Namasale                 | L. kyoga           |
| Uganda   | Port Butiaba                                | L.Albert           |

### A map of Africa showing major Capes, Straits, Canals, and Gulfs.



### Activity.

1.Name the biggest country in Africa.

.....

2.Which is the smallest country in Africa?

.....

3.Which is the biggest island country of Africa?

.....

4.State the mineral mined from port Harcourt in Nigeria.

.....

5.How is the Suez canal important to Africa?

.....

6.Which European explorer named the Southern tip of South Africa the Cape of storms?

.....

7.Name the island country of Africa where Omukama Kabalega and Kabaka Mwanga of Buganda were exiled by Colonel Henry Colville.

.....

8.Which coastal port in Africa handles most of Uganda's imports and exports?

.....

### Lesson 8

#### Locating Countries using Lines of Longitude and Latitude.

##### Example i:

##### Locating Algeria.

- Algeria is found between latitudes  $18^{\circ}$  N &  $37^{\circ}$  N and longitudes  $8\frac{1}{2}^{\circ}$  W &  $12^{\circ}$  E.
- This means that Algeria lies entirely in the Northern hemisphere (i.e. North of the Equator) but crossed by the Greenwich.
- The space enclosed by the above-mentioned longitudes and latitudes is where Algeria is located.
- So we say, Algeria lies between latitudes  $18^{\circ}$ N &  $37^{\circ}$  N and longitudes  $8\frac{1}{2}^{\circ}$  W &  $12^{\circ}$ E.
- **Algeria** is the biggest country in Africa.Its capital city is called **Algiers**.

##### Example ii:

##### Locating Botswana.

- Botswana is found entirely in the Southern hemisphere, so both latitudes are marked ( $^{\circ}$ S) and both longitudes are also marked degrees East because it also lies entirely in the Eastern hemisphere. Botswana lies between  $18^{\circ}$ S &  $27^{\circ}$  S and  $21^{\circ}$  E &  $29\frac{1}{2}^{\circ}$  E.



### How to use Longitudes and Latitudes to locate places.

- Longitudes and latitudes are not numbered consecutively as 0,1,2,3,4,5,etc.
- They are commonly numbered 0,10,20,30,40,50 or 0,5,10,15,20,25,30 etc so, we have to determine the longitudes and latitudes that are not indicated.

Identify any two parallel longitudes or latitudes e.g. 20°E and 30°E.

- Find the degrees between these lines i.e. there are 10° between 20°E and 30°E.
- Find the distance in cm or mm between those two lines e.g. there are 3cm or 30mm between those lines.

**Divide the answer of (c) by that of (b),**

$$\begin{aligned}\text{So } 10^0 &= 30\text{mm} \\ 1^0 &= 30\text{mm}/10 \\ 1^0 &= 3\text{mm}\end{aligned}$$

Therefore every 3mm make 1° or 1mm =  $\frac{1}{3}^0$ . So we can calculate and get the required longitude or latitude.

### **Activity**

1.Find the location of the following countries using grid reference. (use your Atlas)

- (i) Kenya (ii) Zambia

2.What is grid reference?

.....  
.....

3.State the capital city of the biggest island country in Africa.

.....

4.Name any two countries in Africa which are located entirely in the Southern hemisphere.

(i).....(ii).....

5.Give any two countries in Africa which are located in both Northern and Southern hemisphere.

(i).....(ii).....

6.Write any two countries in Africa which are only found in the Northern hemisphere.

(i).....(ii).....

## Lesson 9

### Regions that make up African continent and countries found in each region.

Six major regions that make Africa;

- Eastern African region.
- Western African region.
- Central African region.
- Northern African region.
- Southern African region.
- Horn of Africa.

#### Countries of East Africa.

| Country  | Capital City |
|----------|--------------|
| Uganda   | Kampala      |
| Kenya    | Nairobi      |
| Tanzania | Dodoma       |
| Rwanda   | Kigali       |
| Burundi  | Gitega       |

#### Countries in the Horn of African.

| Country  | Capital city |
|----------|--------------|
| Somalia  | Mogadishu    |
| Eritrea  | Asmara       |
| Djibouti | Djibouti     |
| Ethiopia | Addis Ababa  |

#### Countries of Southern Africa

| Country      | Capital city |
|--------------|--------------|
| South Africa | Pretoria     |
| Namibia      | Windhoek     |
| Botswana     | Gaborone     |
| Lesotho      | Maseru       |

|            |          |
|------------|----------|
| Swaziland  | Eswatin  |
| Malawi     | Lilongwe |
| Zimbabwe   | Harare   |
| Zambia     | Lusaka   |
| Mozambique | Maputo   |
| Angola     | Luanda   |

#### Activity

1.How regions that makes up the African continent.

.....

2. Mention the region in which Uganda is found.

.....

3. In which region of Africa is Ethiopia located?

.....

4. Name the last country in the Horn of Africa to gain independence.

.....

5. How did Ethiopia become a landlocked country?

.....

6. Give any one enclave of Africa?

.....

7. Give any two important places found in a capital city of any country.

i).....

ii).....

8. What is an enclave?

.....

## Lesson 10

### Countries of Central Africa

| Country                      | capital city    |
|------------------------------|-----------------|
| Democratic Republic of Congo | <u>Kinshasa</u> |
| Central African Republic     | Bangui          |
| Gabon                        | Libreville      |
| Cong Brazzaville             | Brazzaville     |
| Chad                         | Ndjamena        |
| Equatorial Guinea            | Malabo          |
| Cameroon                     | Yaounde         |

| country     | capital city |
|-------------|--------------|
| Sudan       | Khartoum     |
| South Sudan | Juba         |
| Egypt       | Cairo        |
| Libya       | Tripoli      |
| Tunisia     | Tunis        |
| Algeria     | Algiers      |
| Morocco     | Rabat        |
| West Sahara | El Aaium     |

### Countries in Northern Africa.

### Countries in West Africa

| Country       | capital city |
|---------------|--------------|
| Nigeria       | Abuja        |
| Togo          | Lome         |
| Ghana         | Accra        |
| Benin         | Porto Novo   |
| Niger         | Niamey       |
| Burkina Faso  | Ouagadougou  |
| Mali          | Bamako       |
| Cote d'Ivoire | Yamoussoukro |
| Sierra Leone  | Freetown     |

|               |            |
|---------------|------------|
| Guinea        | Conakry    |
| Guinea Bissau | Bissau     |
| Gambia        | Banjul     |
| Senegal       | Dakar      |
| Mauritania    | Nouakchott |
| Cape Verde    | Praia      |

### Activity

1. Name four countries found in the Central region of Africa.

(i).....(ii).....

(iii).....(iv).....

2. Sudan was the biggest country in Africa, how did it lose its position?

.....

3. Name the biggest country in Africa.

.....

4. Name two countries found in West Africa.

(i).....(ii).....

5. Write down the capital cities of the following countries;

(i) Rwanda.....

(ii) Angola.....

(iii) South Africa.....

6. Name the biggest country in Africa.

.....

### Lesson 11

#### Island countries of Africa

➤ An **island** is a piece of land that is completely surrounded by a water body.

#### Major Island Countries of Africa.

| country               | capital city | location       |
|-----------------------|--------------|----------------|
| Madagascar            | Antananarivo | Indian ocean   |
| Comoros               | Comoros      | Indian ocean   |
| Seychelles            | Victoria     | Indian ocean   |
| Cape Verde            | Praia        | Atlantic ocean |
| Reunion               | Reunion      | Indian ocean   |
| Mauritius             | Port Louis   | Indian ocean   |
| Sao Tome and Principe | Sao Tome     | Atlantic ocean |

### **Landlocked countries of Africa.**

- A **landlocked country** is a country without a seaport of her own.
- Africa has **15** landlocked countries.

### **Some Landlocked Countries of Africa.**

| <b>Country</b>           | <b>Region</b>            |
|--------------------------|--------------------------|
| Uganda                   | East Africa              |
| Rwanda                   | Central African          |
| Burundi                  | Central African Republic |
| South Sudan              | North Africa             |
| Ethiopia                 | Horn of Africa           |
| Lesotho                  | South Africa             |
| Swaziland                | South Africa             |
| Chad                     | Central Africa           |
| Botswana                 | South Africa             |
| Zimbabwe                 | South Africa             |
| Central African Republic | Central Africa           |
| Niger                    | West Africa              |
| Burkina Faso             | West Africa              |
| Mali                     | West Africa              |
| Malawi                   | South Africa             |

### **Problems faced by landlocked countries.**

- Delay of goods in transit.
- High taxation imposed on imports and exports.
- Perishable goods can easily get spoilt on the way.

### **Solutions to problems faced by landlocked countries.**

- By promoting air transport to prevent the delay of goods in transit.
- By promoting railway transport to reduce on transport costs.
- By promoting industrialization in order to reduce on exporting unprocessed goods.

### Activity.

1.What is an island?

.....

2.What term is given to a country that has a seaport of her own?

.....

3.How is Rwanda similar to South Sudan in terms geographical location?

.....

4.State the best means of transporting perishable goods from Uganda to the United Kingdom.

.....

5.What are perishable goods?

.....

6.Name the biggest island in Lake Victoria that is part of Kalangala district.

.....

7.Why should landlocked countries co-operate with non-landlocked countries?

.....

8.Name any two islands that are part of Tanzania.

(i).....(ii).....

9.Give two problems faced by landlocked countries.

i).....

ii).....

10.How can landlocked countries solve their problems related to importing and exporting goods?.

i).....

ii).....

### TOPICAL QUESTIONS

#### THE LOCATION OF AFRICA ON THE MAP OF THE WORLD.

1.What is a continent?

.....

2. Mention the largest continent in the world.

.....

3. Which is the smallest continent in the world?

.....

4. Which is the biggest ocean in the world?

.....

5.State two reasons why it took long for the Europeans to enter the interior of Africa.

i).....

ii).....

6.Give any two seas that border Africa.

(i).....

(ii).....

7. Which water way connects the Red Sea to the Mediterranean Sea?

.....

8. For which two reasons did the Europeans called Africa a dark continent?

i).....

ii).....

9.In which two ways can we identify Africa as a unique continent?

i).....

ii).....

10. Which continent is not inhabited by humans?

.....

11. Give a reason why the above continent is not inhabited by people

.....

12Give the meaning of the following terms.

(i)Lines of

latitude.....

.....

(ii)Latitude.....

.....

(iii) Hemisphere.....

.....

13. Give a reason why Africa is called a tropical continent.

.....

14. State a reason why the Equator is marked 0°.

.....

15. For which reason are lines of latitude south of the Equator are numbered degrees South?

.....

16. Name the neighbouring country of East Africa in the East that is crossed by the line of latitude marked  $0^{\circ}$ .

17. Which country in East Africa is not crossed by the Equator?

18. State one importance of the Equator to a map reader.

19. Which line of latitude is marked  $23.5^{\circ}$  south?

20. Mention any two countries in Africa located in both Northern and Southern hemisphere.

(i).....

(ii).....

21. What is Equinox?

22. What term is given to the movement of the earth around the sun?

23. Give a reason why the people of Kenya see the sun earlier than those of Uganda.

24. Mention the imaginary line on which the earth rotates.

25. Name the months of the year when Equinox occurs.

(i).....

(ii).....

## **TOPIC 2: PHYSICAL FEATURES OF AFRICA.**

### **Lesson 1**

- Physical features are landforms of an area.

#### **Types / categories of physical features.**

- Drainage features.
- Relief features.

#### **Relief features.**

- **Relief features** are landforms of an area that are raised above the earth's surface.
- **Relief** is the general appearance of the landscape.
- **Altitude** is the height of land above the sea level.



## Examples of relief features.

- Mountains.
- Plateaus.
- Highlands.
- Hills.
- Coastal plains.

## Drainage features.

- **Drainage features** are landforms of an area that contain water in them (water dories).
- **Drainage** is the ground water system of an area.

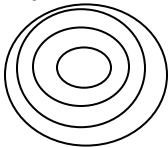
## Examples of drainage features.

- Lakes.
- Rivers.
- Sea.
- Oceans.
- Streams.
- Springs.
- Wells.
- Craterlakes.

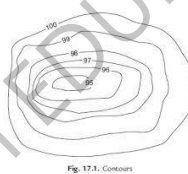
## **Hills.**

- A hill is a raised piece of land above the surrounding area.
- Many hills in an area form **highland**.

## A map symbol of a hill



## A map symbol of a contour /altitude



## Importance of hills.

- Hills are suitable for fixing communication masts.
- Hills have fertile soil for crop farming.
- Some hills are source of minerals e.g. **Osukuru Hills** in Tororo District.
- Hills are used for animal grazing.
- Some hills are source of rivers which help in irrigating crops.

## Activity

1.What are physical features?

.....

2.Give any two categories of physical features.

(i).....(ii).....

3.What is drainage?

.....

4.Mention any two examples of physical features in Africa.

(i).....(ii).....

5.What is a plateau?

6.In which way do mountains / hills promote communication in an area?

## Lesson 2

### Highlands.

A highland is an area with many hills and mountains.

#### Examples of highlands in Africa

| Highland            | Location / country |
|---------------------|--------------------|
| Kenya highlands     | Kenya              |
| Ethiopian highlands | Ethiopia           |
| Adamawa highlands   | Cameroon           |
| Cameroon highlands  | Cameroon           |
| Kigezi highlands    | Uganda             |

#### Importance of highlands.

- Highlands are suitable for fixing communication masts.
- Highlands have fertile soil for crop farming.
- Some highlands are source of minerals e.g. limestone, Diamonds.
- Highlands are used for animal grazing.
- Some highlands are source of rivers which help in irrigating crops.
- Highlands help in the formation of rainfall.
- Highlands have cool temperature suitable for dairy farming and sheep rearing.

### Mountains.

- A mountain is a raised piece of land higher than 2000metres above the sea level.

#### Some mountains in Africa which have snow on their peaks.

- Mt.Rwenzori in Uganda.
- Mt.Kenya in Uganda.
- Mt.Kilimanjaro in Tanzania.

**Note.** Some mountains in Africa are snow-capped because their peaks cross the snowline.

- **Snowline** is a point on a mountain where snow never melts.

### **Crops grown on highlands.**

- **Arabica coffee** on the slopes of Mt.Elgon and Mt.Kilimanjaro.
- **Wheat** in Kapchorwa on Mt.Elgon.
- **Barley** in Kapchorwa on Mt.Elgon.
- Maize, Grapes, Tea, Tomatoes, Cabbages, Irish potatoes.

### **Sheep reared on highlands.**

- Merino sheep for wool.
- Hampshire .
- Ayrshire.
- Dorset.

### **Activity.**

1.What are relief physical features?

.....

2.Draw a map symbol of altitude.

3.Give the meaning of term relief.

.....

4.State one example of a relief feature.

.....

5.How are relief features different from drainage features?

.....

6.What term is given to series of connected mountains?

.....

7.Give any one importance of highlands and hills.

.....

### **Lesson 3**

#### **Examples of some Mountains in Africa.**

| <b>mountain</b> | <b>location / country</b> |
|-----------------|---------------------------|
| Kilimanjaro     | Tanzania                  |
| Kenya           | Kenya                     |
| Rwenzori        | Uganda                    |
| Atlas           | Morocco                   |
| Nyiragongo      | DRC                       |

## Type of mountains in Africa

- Block mountains / horst mountains.
- Volcanic mountains.
- Fold mountains.

### Activity.

1. Give the three types of mountains in Africa.

(i).....(ii).....

2. What other name is given to the block mountain?

.....

3. Name any two highland districts of Uganda.

(i).....(ii).....

4. Give a reason why Kigezi Sub region is regarded as the Switzerland of Africa.

.....

5. Which traditional cash crop is mainly grown on Kenya highlands?

.....

6. Which European colonialist introduced the white settlers in the Kenya highlands?

.....

7. State the economic importance of mountains.

.....

8. How do mountains hinder the development of a country?

.....

9. Give any one political importance of mountains to countries of Africa.

.....

10. Mention one social importance of mountains to people.

.....

## Lesson 4

### Volcanic mountains

- **Volcanic mountains** are mountains which were formed by **volcanicity** (volcanic eruption/ volcanic activity)
- **Volcanicity** is the process by which magma is pushed to the earth's surface through a vent.

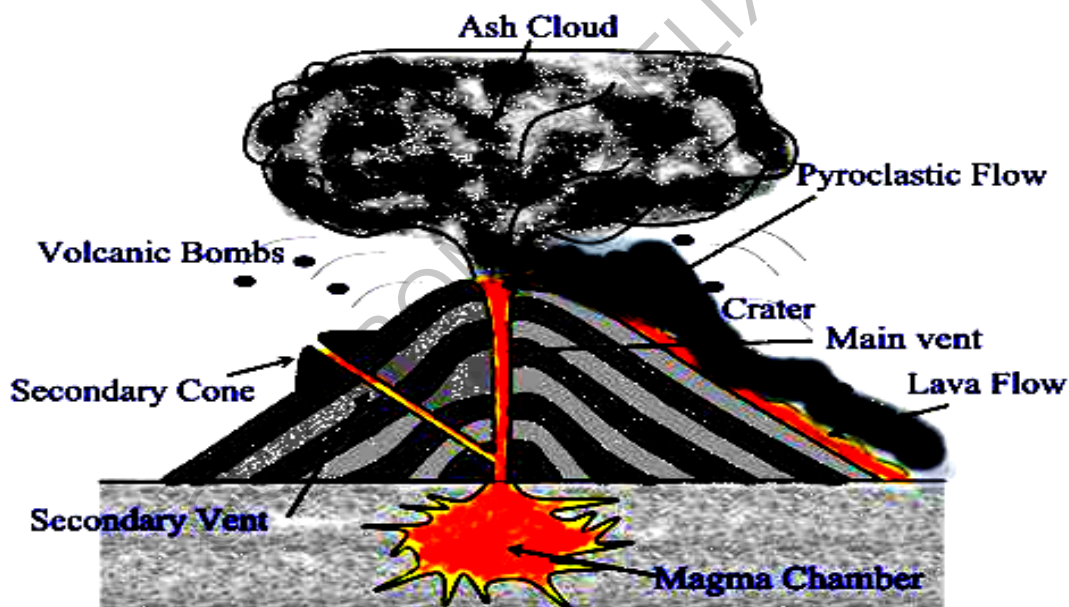
### Formation of volcanic mountains.

- **Volcanic mountains** are formed when hot molten rock in the earth's surface is pushed out through a vent which cools and solidifies to form volcanic mountains.

- Hot molten rock is called **magma**.
- When magma is pushed on the earth's surface is called **lava**.
- A hard rock that remains standing after eruption is called a **volcanic plug**.
- A hole formed on top of a volcanic mountain after eruption is called a **crater**.
- When this hole/crater is filled with water is called a **crater lake**.
- **Vulcanicity** is the process by which magma is forced on the earth's surface through a vent.
- A **volcano** is a mountain with a crater on its top.

### Examples of volcanic mountains in Africa

- |                  |                      |
|------------------|----------------------|
| ➤ Mt.Tibetsi     | ➤ Mt.Mufumbiro       |
| ➤ Mt.Kilimanjaro | ➤ Mt.Oldoinyo Lengai |
| ➤ Mt.Drakensberg | ➤ Mt.Nyamurangira    |
| ➤ Mt.Cameroon    | ➤ Mt.Kenya           |
| ➤ Mt.Ahggar      |                      |



### Features formed as a result of vulcanicity / volcanic activity.

- |                      |               |
|----------------------|---------------|
| ➤ Crater lakes.      | ➤ Inselbergs. |
| ➤ Geysers .          | ➤ Craters.    |
| ➤ Hot springs.       | ➤ Caldera.    |
| ➤ Lava dammed lakes. |               |

**Caldera**-is a large hole formed when violent eruption blows off the top part of a volcano.

- **Volcanic plug**-is a rock that remains standing after volcanic eruption.
- **Geysers**-are water jets shooting off the ground.

## Activity

1.How were volcanic mountains formed?

2.Mention any two features found on a volcanic mountain.

(i).....(ii).....

3.How is lava different from magma?

4.Which volcanic mountain has just erupted in DRC?

5.In which way a crater different from a crater lake?

## Lesson 5

### Inselbergs

**Inselbergs**-are isolated hills on plains.

- Inselbergs were formed by **erosion**.

### **Characteristics of inselbergs**

- Inselbergs have smooth steep sides.
- Inselbergs have flat tops.

### **Examples of inselbergs in Africa.**

- **Usukuru hills** in Tororo District.
- **Labwor hills** in Karamoja.
- **Musaijamukuru hills** in Hoima

### Importance of inselbergs.

- Inselbergs have limestone which promote mining.
- Inselbergs attract tourists who bring income to a country.
- Inselbergs are sources of raw-materials to the cement industries.

### Hot springs

- **Hot springs** are pools with naturally heated water.

### **Examples of hot springs.**

- **Kitagata hot springs** –Bushenyi- Uganda.
- **Rubale hot springs** –Ntungamo- Uganda.
- **Kisiizi hot springs** –Rukungiri- Uganda.
- **Sempaya hot springs** –Bundibugyo- Uganda.
- **Kibiro hot springs** –Hoima- Uganda.

## Activity

1.How were inselbergs formed?

.....

2.In which way do cement factories depend on insebergs?

.....

3.State the economic importance of insebergs to a country like Uganda.

.....

4.Which type of electricity is generated from hot springs?

.....

5.Mention any one social value of hotsprings.

.....

6.How were hot springs formed?

.....

## Lesson 6

### Categories / types of volcanic mountains.

- Active volcanoes / active volcanic mountains.
- Dormant or sleeping volcanoes
- Dead/ extinct volcanoes.

### Active volcanoes

- These are volcanic mountains which can erupt at any time.

### Examples of active volcanic mountains in Africa

| Mountain                                 | location |
|------------------------------------------|----------|
| Mt.Nyiragongo(last erupted in May ,2021) | DRC      |
| Mt.Nyamurangira                          | DRC      |
| Mt.Cameroon                              | Cameroon |

### Dormant volcanic mountains / sleeping volcanic mountains.

- These are volcanic mountains which have taken many years without erupting but can erupt in future.

### Examples of dormant volcanic mountain

| Mountain       | Llocation / country |
|----------------|---------------------|
| Mt.Kilimanjaro | Tanzania            |
| Mt.Moroto      | Uganda              |
| Mt.Mufumbiro   | Uganda              |

### **Dead volcanic mountains / extinct volcanic mountains.**

- These are volcanic mountains which can no longer erupt.

| mountain    | location / country |
|-------------|--------------------|
| Mt.Elgon    | Uganda             |
| Mt.Kenya    | Kenya              |
| Drakensberg | South Africa       |

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

- Volcanic mountains have fertile soil for growing crops.
- Volcanic mountains promote tourism.
- Some volcanic mountains have hot springs which are used to produce geothermal electricity.
- Some volcanic mountains promote mining.
- Some volcanic mountains have crater lakes which promote fishing.
- Volcanic mountains help in the formation of rainfall.

### **Dangers /disadvantages of volcanic mountains**

- Volcanic mountains make transport and communication difficult due to eruption.
- Volcanic mountains pollute the environment during eruption.
- Volcanic mountains destroy people's property during eruption.
- Volcanic mountains kill people and animals when they erupt

### **Activity.**

1.State any one economic value of volcanic mountains in Africa.

.....

2.Give any two reasons why people are not advised to settle on the slopes of volcanic mountains.

i).....

ii).....

3.Which type of coffee grows well in volcanic fertile soils?

.....

4.How are the Chagga and Bagishu related in terms of economic activities?

.....

5.State any three categories of volcanic mountains.

(i).....(ii).....

iii).....

6.How are volcanic mountains formed?

.....



7.Name the mountain in Africa that has its peak as Fako.

8.Mention any two examples of volcanic mountains in Africa.

(i).....

(ii).....

## Lesson 7

### Block / horst mountains:

- They were formed as a result of **faulting**.
- **Faulting** is the breaking down of the earth's crust.
- **Block Mountains** are also called **horst mountains**.

### Examples of block mountains in in Africa

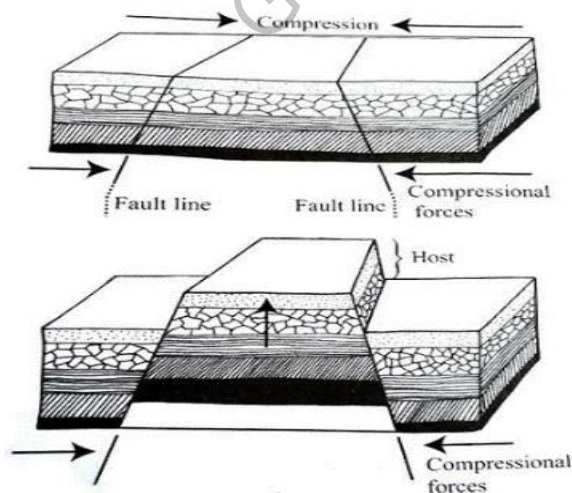
- **Mt. Rwenzori** – Uganda.
- **Mt. Ndoto** - Kenya.
- **Mt. Ulunguru** – Tanzania.
- **Mt. Usambara** – Tanzania.
- **Mt. Mahari** – Tanzania.
- **Mt. Danakil** in Ethiopia.
- **Mt. Pare** in Tanzania.

### **Forces responsible for the formation of block mountains.**

- Tensional forces.
- Compressional forces.

### **Formation of block mountains by tensional forces.**

- **Tensional forces** pull the earth's crust from either side forcing the central block to sink to form the rift valley.
- The blocks on either side that remain standing, form **block mountains**.



### **Formation of block / horst mountains by compressional force.**

- **Compressional forces** push the earth's crust from either side forcing the middle block to rise to form a **Block Mountain**.
- Blocks on either side sink to form **rift valleys**.

### **Importance of block mountains.**

- Block mountains attract tourists who bring income.
- Block mountains modify the climate of an area by influencing the formation of rainfall.
- Block mountains are source of rivers.
- Block mountains have fertile soil which support crop farming.
- Some block mountains form natural boundaries between countries .e.g. Mt.Rwenzori between Uganda and DRC.

### **Disadvantages of block mountains**

- They make road construction difficult and expensive.
- They hinder mechanised agriculture.
- They make the construction of railway lines difficult and expensive.
- They are affected by landslides.

### **Problems faced by people who live on the slopes of mountains.**

- Soil erosion
- Landslides
- Poor transport network.
- It leads to death of people.
- It leads to the displacement of people.
- It leads to the destruction of property.

### **Activity**

1.How were horst mountains formed?

.....

2Which two forces led to the formation of block mountains?

i).....

ii).....

3.Mention any two examples of block mountains in Africa.

(i).....(ii).....

4.Apart from block mountains,mention other two physical features which were formed by faulting.

(i).....(ii).....

5. In which two ways can the problem of transport be solved in mountainous areas?

i).....

ii).....

6. Why do people of Kapchorwa rear donkeys for transport?

.....

7. Why is mechanized agriculture poor in mountainous areas?

.....

8. Name any one district in Uganda which is commonly affected by landslides.

.....

## Lesson 8

### Fold mountains

- **Fold mountains** were formed as a result of **folding**.
- **Folding** is the up and down movement of the earth.
- Mountains are formed by the folding of the earth's surface due to compressional forces. The series of mountains formed is called **mountain ranges**.
- Folding occurs in young sedimentary rocks which collide by horizontal earth's movement causing rocks to uplift and fold.

### Types of folding.

- Young folding.
- Old folding.

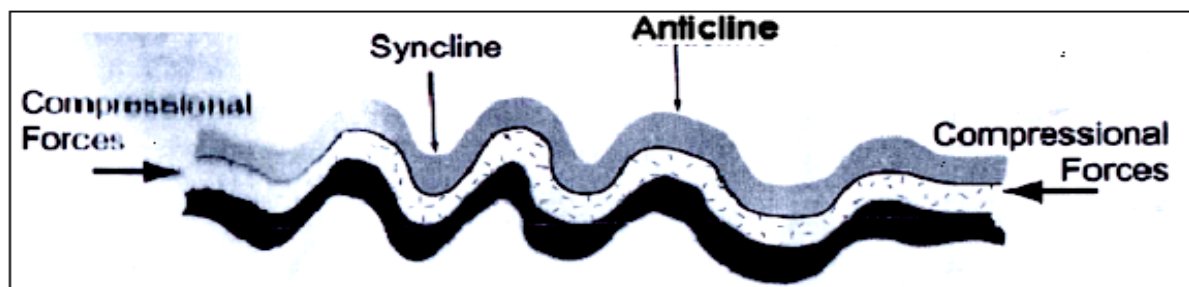
### Features formed as a result of folding.

- **Anticlines:** Are raised parts of a fold mountain.
- **Synclines:** Are sunken parts of a fold mountain.

### Examples of fold mountains in Africa.

- Atlas Mountains in the extreme Northwest of Africa in Morocco.
- Cape Ranges in the Central part of South Africa.

### Formation of fold mountains:



### **Disadvantages of mountains / highlands.**

- Highlands and mountains make the construction of roads and railway lines expensive and difficult.
- Highlands and mountains hinder mechanized agriculture.
- Highlands and mountains are affected by soil erosion.
- Highlands and mountains are affected by landslides.

**Note.** People in highland and mountainous areas rear donkeys for transport e.g. **Kapchorwa** and **Bundibugyo** districts.

### **Problems faced by people who live on Slopes Mountains /highlands.**

- Severe soil erosion.
- Landslides.
- Poor transport network.
- Poor agricultural mechanization.

### **Why transport is poor in mountainous areas?**

- There is poor transport in mountainous areas because it is difficult and expensive to construct roads and railway lines.

### **Activity.**

1.What is mechanized agriculture?

.....

2.State a reason why the people of Kapchorwa and Bundibugyo districts rear donkeys.

.....

3.How is Mt.Danakil different from Mt. Nyiragongo of DRC?

.....

4.Which major problem is faced by people of Bududa district?

.....

5.What term is given to the steep sides of the rift valley?

.....

6.What type of mountain is Mt. Drakensberg of South East Africa?

.....

7.How were Fold Mountains formed?

.....

8.Mention two features formed on Fold Mountains.

(i).....(ii).....

9. Why Kisoro and Kabale districts are called Switzerland of Africa?

10. In which country are the Atlas Mountains located?

11. Who named the Kigezi highlands the Switzerland of Africa?

12. Give a reason why the above person called Kabale and Kisoro the Switzerland of Africa.

## Lesson 9

### Peaks of some mountains in Africa

| Mountain     | Peak              |
|--------------|-------------------|
| Kilimanjaro  | Uhuru peak        |
| Draakensberg | Thabana Ntlenyana |
| Atlas        | Toubkal           |
| Ahaggar      | Tahat             |

|                     |            |
|---------------------|------------|
| Cameroon            | Fako       |
| Ethiopian highlands | Ras Dashan |
| Moroto              | Sokdek     |

### The coastal regions/coastal plain and basins

- A **coastal plain** is a narrow zone between the sea and land. The coast may be smooth or having gaps depending on the land, wind (waves), marine processes.
- Some coastal regions have **lagoons**.
- The **coastline of Africa** is not regular because of the effects of the waves.
- Some parts of Africa's coastline have in-lets while others are smooth.

### Features found on the coastal plain.

- Coral reefs.
- Cliffs.
- Beaches.
- Lagoons.

**Coral reefs** are hard rocks at the bottom of the sea formed by the dead sea creatures called **polyps**.

### Importance of coral reefs.

- Coral reefs are source of limestone for making cement.
- Coral reefs attract tourists who bring income.
- Coral reefs promote tourism.
- Coral reefs are used for making jewellery

### **Disadvantages of coral reefs.**

- Coral reefs affect ocean going vessels by blocking their passages.
- Coral reefs reduce the depth of the ocean.

### **Lagoon lakes.**

- A **lagoon lake** is a lake formed when sea water is separated by mud and sand

**Note.** The coast of West Africa has many lagoons because they have many in-lets. or gaps .

### **Countries of West Africa with many lagoons.**

- Nigeria.
- Benin.
- Ghana.
- Cote d'ivoire.

### **Cities in Africa built on islands in lagoon lakes.**

- **Abidjan** in Ivory Coast.
- **Lagos** in Nigeria.
- **Durban** in South Africa.
- There are many lagoon lakes on the **Nile delta**.

### **Economic activities carried out on the coastlines include;**

- Mining.
- Fishing.
- Oil refining.
- Tourism.
- Trading.
- Farming.

### **Importance of the coastal plains.**

- Coastal plains has enough land for the building of sea ports.
- Coastal plains have fertile soil for crop growing.
- The coastal plain promotes tourism.
- The coastal plain promotes fishing.
- The coastal plain handles countries' imports and exports.
- Coastal plains are source of employment to people.
- The coastal plain has a harbour for loading and offloading goods to and from ship.

### **Activity**

1.What term is given to the narrow strip of land at the coast of East Africa?

.....

2.State any two features found on a coastal plain.

(i).....(ii).....

3.For which reason are there many lagoons at the coast of West Africa?

.....

4. Give any two importance of the coastal plain.

- i).....
- ii).....

5. Name any two cities in Africa that were built on lagoons.

- (i).....(ii).....

6. What are lagoon lakes?

.....

7. What are coral reefs?

.....

8. How do cement industries depend on coral reefs?

.....

## Lesson 10

### Basins.

- **Basins** are low lying land found between plateaus and highlands.
- Basins were formed as a result of **down warping**.
- When water collects in basins, **basin lakes** are formed

### Examples of basins in Africa.

- Nile basin.
- Akavango basin.
- Chad basin.
- Victoria basin.
- Congo basin.
- Zambezi basin.

### Importance of basins.

- Basins have fertile soil for growing crops.
- Basins attract tourists who bring income.
- Basins are source of water for domestic use.
- Basin lakes are source of water for industrial use.
- Basin lakes promote fishing.

**Cliffs.** A cliff is a high, steep surface of a rock.

- **Cliffs** are formed as a result of erosion.

**A beach** is an area covered with sand or small rocks that is next to an ocean or lake.

### Activity.

1. What is a basin?

.....

2.How were basins formed?

3.Give any two examples of basins in Africa.

(i).....(ii).....

4.State any two values of basins to people.

i).....

ii).....

5.Who were cliffs formed?

## Lesson 11

### Plateau

- A **plateau** is a raised flat topped piece of land.
- The **plateau** covers the largest part of Africa.
- A plateau lies between 200metres 2000metres above the sea level.

### Some of the main plateaus in Africa include:

- **Tibesti** plateau in Chad.
- **Ahagger** (Tasili) plateau in Algeria.
- **Fouta Djallon** (Guinea).
- **Yatta/ Nyika** plateau plateau of Kenya.
- **Bie plateau** of Angola.
- **Jos plateau** in Nigeria.

**Note; Nyika** means **bush** or **hinterland**.

### Physical features found on plateaus.

- |           |            |
|-----------|------------|
| ➤ Hills.  | ➤ Valleys. |
| ➤ Rivers. | ➤ Streams. |
| ➤ Lakes.  | ➤ Plains.  |

### Economic activities carried out on plateaus.

- |                      |            |
|----------------------|------------|
| ➤ Crop farming.      | ➤ Mining.  |
| ➤ Animal rearing.    | ➤ Fishing. |
| ➤ Tourism.           | ➤ Hunt     |
| ➤ Industrialization. |            |



### Importance of plateaus.

- Lakes and rivers on plateaus promote fishing.
- Plateaus have plenty of pasture for grazing animal.
- Plateaus have enough space for building industries.
- Plateaus have fertile soil for crop growing.
- Some plateaus have minerals which promote mining.
- Plateaus have enough land for human settlement.

### Problems associated with plateaus.

- Pests and diseases.
- Drought.
- Air pollution.
- Soil erosion.
- Water pollution.
- Land pollution.

### Activity.

1.What is a plateau?

.....

2.Give any two physical features found on Africa's plateau.

(i).....(ii).....

3.What evidence is there to show that the plateau of Africa is tilted to the North?

.....

4.Mention any two economic activities carried out on Africa's plateau.

(i).....(ii).....

5.For what reason does river Nile flow Northwards?

.....

6.Which relief feature covers the largest part of Africa?

.....

7.Draw a map symbol of a plateau.



## Lesson 12

### The Great Rift Valley.

- A **rift valley** is a long, narrow and depression on the earth's surface.
- Rift valleys were formed by the process of **faulting**.
- A **fault** is a deep crack on the earth's surface.
- The faults (deep cracks) are caused by tensional and compression forces.
- The steep sides of the rift valley are called **escarpments**.

**Note;**The great African rift valley starts from Syria, runs through Jordan, Dead Sea, gulf of Aqaba, Red Sea, gulf of Eden, Ethiopian highlands, Kenya, Tanzania, Malawi and ends Beira in Mozambique.

- The Great Rift Valley covers a distance of 7200km of which 5600 are found in Africa.

### The rift valley is divided into two arms in East Africa:

- Eastern arm / branch
- Western arm / branch

### The western arm runs through:

- Uganda.
- Rwanda.
- Burundi.
- Tanzania.

### Characteristics of the rift valley.

- It is long.
- It is wide.
- It is bordered by escarpments.
- It has steep sides.

### Ethiopian rift valley;

- It starts from **Jordan** in **Syria**, enters Africa from **Red sea** and runs through Danakil depression and lake Abaya.

### Malawian rift valley.

- It runs through Malawi and Mozambique including Lake Malawi.

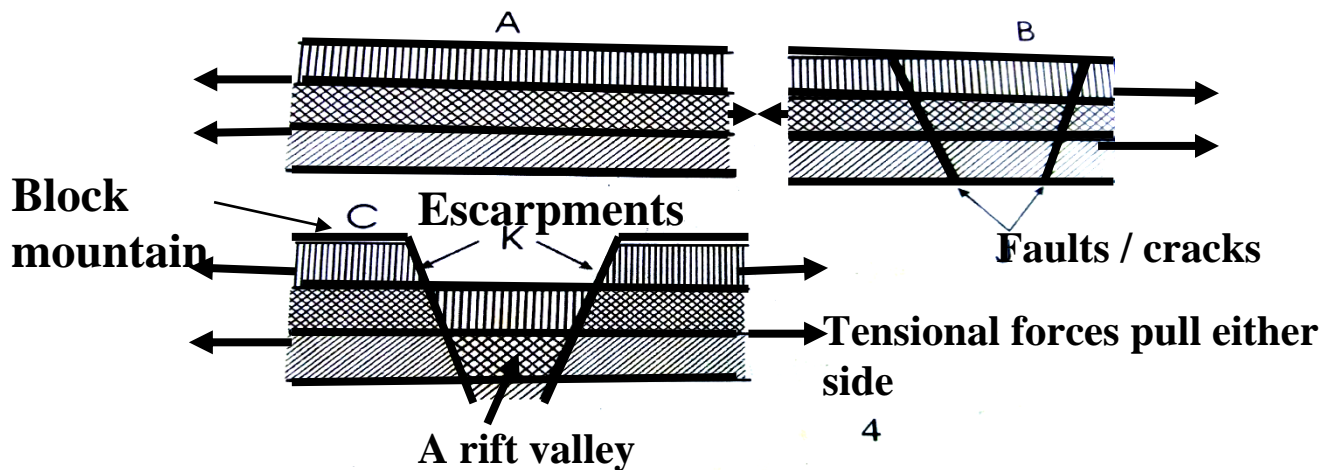
### Forces responsible for the formation of the rift valley;

- Tensional forces.
- Compressional forces.

### Formation of the rift valley by tensional forces.

- Tensional forces pulled the earth's crust to either side making the central block sink and formed the rift valley.
- The block that remained hanging on either side formed horst mountains / block mountains.

**A diagram showing the formation of the rift valley by tensional forces**



**Importance of the rift valley.**

- The rift valley attracts tourists who bring income.
- The rift valley helps in rain formation due to high rate of evaporation from rift valley lakes.
- Rift valley lakes promote fishing.
- Some rift valley lakes promote water transport.

**Lakes in the Western arm of the rift valley:**

- |              |                 |
|--------------|-----------------|
| ➤ L. Albert. | ➤ L. Kivu       |
| ➤ L. Edward. | ➤ L. Tanganyika |
| ➤ L. George. | ➤ L. Bangueru   |

**Lakes in the Eastern arm of the rift valley:**

- |                  |               |                          |
|------------------|---------------|--------------------------|
| ➤ L. Turkana.    | ➤ L. Magadi.  | ➤ L. Bogoria             |
| ➤ L. Baringo.    | ➤ L. Natron.  |                          |
| ➤ L. Naivasha.   | ➤ L. Manyara. | ➤ Lake Abaya in Ethiopia |
| ➤ L. Elmenteita. | ➤ L. Eyasi.   |                          |
| ➤ L. Nakuru.     | ➤ L. Malawi.  |                          |

**Lakes not in (outside) the rift valley.**

- |                        |                        |
|------------------------|------------------------|
| ➤ L. Victoria (Uganda) | ➤ L. Amboseli (Kenya)  |
| ➤ L. Kyoga (Uganda)    | ➤ L. Chad in Chad.     |
| ➤ L. Wamala (Uganda).  | ➤ L. Tana in Ethiopia. |
| ➤ L. Bisina (Uganda).  |                        |

### Important facts:

- **L. Tanganyika** is the longest and deepest lake in Africa.
- **L. Nakuru** is a famous tourist attraction because of her **flamingo birds**.
- L. Magadi is where Kenya mines **soda Ash** and **salt**.

### Problems /disadvantages of the rift valley:

- There is too much heat (high temperatures).
- There are disease vectors e.g. Tsetse flies.
- There is drought
- There is scarcity of fresh water.
- There is poor transport and communications.
- Sometimes theyfloods.
- The rift valley makes the construction of roads and railway lines difficult and expensive.

### Activity.

1. How was the Great Rift Valley formed?

.....

2. What are escarpments?

.....

3. List down any two characteristics of the rift valley.

(i).....

(ii).....

4. Which other two physical feature were formed the same way like the rift valley?

(i).....(ii).....

5. How does the rift valley hinder the development of areas?

.....

6. Give a reason why rift valley areas are hot.

.....

7. Mention any two economic activities carried out in the rift valley areas.

(i).....(ii).....

8. Name the only lake in Kenya which is not found in the Eastern arm of the great African rift valley rift v alley.

.....

9. For what reason is lake Katwe not called a rift valley lake yet it is found in the Western arm of the Great African rift valley?

.....

## Lesson 13

### Oceans

- **Oceans** are large masses of the earth that are covered by water.

### **Africa is bordered by two main oceans namely:**

- Indian Ocean in the East
- Atlantic Ocean in the West

### **Importance of oceans:**

- They are used for water transport using ships.
- They are a source of fish.
- They are mining areas for salt, limestone, Oil etc.
- They are a tourist attraction.
- They are used for recreation e.g. swimming, boat racing etc.
- They are a source of animal feeds e.g. the shells of water creatures are crushed to provide calcium.
- They help in rainfall formation.

### **Disadvantages of oceans:**

- They occupy a lot of land.
- Water levels sometimes rise submerging land.
- They are very wide and separate continents.

### **Problems facing oceans:**

- Pollution e.g. oil spillage from oil tanks.
- Dumping of nuclear wastes.
- Over use of water from oceans.
- Prolonged drought which reduce water levels.

### **Activity**

1.Which Ocean washes the coast of East Africa?

.....

2.Why do most rivers in East Africa pour their water in the oceans?

.....

3.Give any two economic importance of oceans to people.

(i).....

(ii).....

4. Mention any two problems facing oceans.

- (i).....
- (ii).....

## Lesson 14

### Lakes in Africa

- A **lake** is a large area of a water body surrounded by land.

#### Examples of lakes in Africa.

- Lake Victoria.
- Lake Turkana.
- Lake Tanganyika.
- Lake Kyoga.
- Lake Ngami.
- Lake Kyoga.
- Lake Volta

#### Types of lakes:

- Basin lakes / depression lakes.
- Rift valley lakes.
- Lava dammed / Lava blocked lakes
- Crater lakes.
- Ox-bow lakes.
- Man made lakes.
- Lagoon lakes.
- Caldera lakes.
- Glacial lakes.

#### Crustal / Down warped / Basin / Depression lakes:

- These lakes were formed by **down warping**.

#### Examples of basin / depression lakes are:

- L. Victoria.
- L. Kyoga
- L. Chad in Chad
- L. Ngami in Botswana.
- L. Amboseli
- L. Wamala.
- L. Kwana.

**Lake Victoria** is the biggest lake in Africa and the second biggest fresh water lake in the world.

#### Characteristics of basin / depression lakes

- They have fresh water due to in let and out lake rivers.
- They have irregular shapes. (They are oblong)
- They are wide.
- Some basin lakes are shallow.

## Lake Victoria

- It's the **largest** fresh water lake in Africa.
- Before the coming of foreigners, Lake Victoria was called **Nalubaale** in Uganda, **Lake Nyanza** in Tanzania and **Lake Sango** in Kenya.
- It is the **largest physical feature** in the **Central plateau** of Africa.

## Activity

1.How were crustal lakes formed?

.....

2.Give any two types of lakes in Africa.

(i).....(ii).....

3.State the main physical feature in the Central plateau of Africa?

.....

4.Name the largest fresh water lake in Africa.

.....

5.For what reason do Basin lakes have fresh water?

.....

6.Mention any two examples of depression lakes in East Africa.

(i).....(ii).....

7.State any two characteristics of crustal lakes.

i).....

ii).....

## Rift valley lakes

- These are lakes that were formed by **faulting**

## Examples of rift valley lakes:

- |              |                |                  |
|--------------|----------------|------------------|
| ➤ L. Albert. | ➤ L.Tanganyika | ➤ L. Elmenteita. |
| ➤ L. Edward. | ➤ L. Turkana.  | ➤ L. Nakuru.     |
| ➤ L. George. | ➤ L. Baringo.  | ➤ L.Magadi.      |
| ➤ L. Kivu    | ➤ L. Naivasha. |                  |

## Characteristics of rift valley lakes.

- |                          |                    |
|--------------------------|--------------------|
| ➤ They are long.         | ➤ They are deep.   |
| ➤ They have salty water. | ➤ They are narrow. |

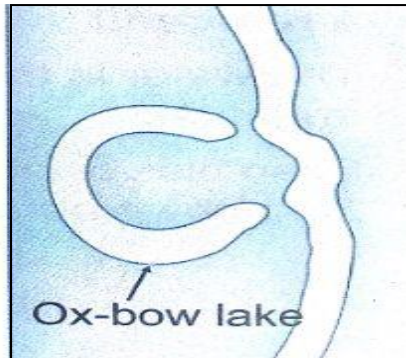
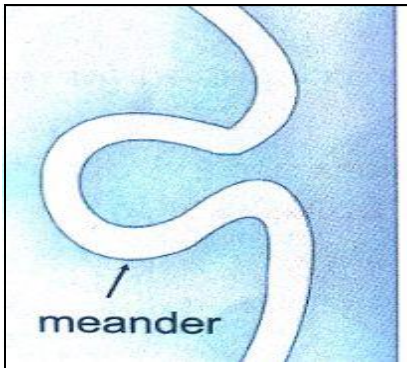
## Why rift valley lakes have salty water.

- They lie on salty rocks.
- They lack outletrivers.

### Ox-Bow lakes:

- They were formed by river **meandering** and river **deposition**.
- A material carried by the river is called a **load**.

**A diagram showing the formation of ox-bow lakes.**



### Rivers in Africa where Ox-bow lakes are found;

- R. Semliki – Uganda.
- R. Nyando – Kenya.
- R. Kilombero – Tanzania
- R. Galma in Nigeria.
- R. Nzoia – Kenya.
- R. Malagarasi- Tz.
- R. Ruizi – Uganda.

### Examples of ox-bowlakes in Africa.

- Lake Utange on river Rufigi in Tanzania.
- Lake Kanyamboli on river Yala,
- Lake Gambia on river Tana in Kenya.
- Lake Avangas in Gabon.
- Lake Manzala on the Nile delta in Egypt.

### Activity

1.Name the only lake in Kenya winch is not found in the riftvalley.

.....

2.How were riftvalley lakes formed ?

.....

3.Why is water from riftvalley lakes not good for drinking ?

.....

4.For what reason do riftvalley lakes have salty water ?

.....

5.Which type of lakes were formed by river meandering and deposition ?

.....



6. Give any two examples of Ox-Bow lakes in Africa.

(i).....

(ii).....

## Lesson 16

### Volcanic lakes

- **Volcanic lakes** were formed by **volcanicity**.

**Volcanic lakes are divided into two groups.**

- Caldera lakes:
- Crater lakes.

### Caldera lakes.

- These are lakes formed when water collects in calderas.
- They are formed after volcanic activity leaves large rounded depressions and filled with water on tops of volcanoes.
- **A caldera** is a large hole formed when violent eruption blows off the top part of a volcano.

### Examples of calderas in Africa.

- Mt. Napak in Uganda.
- Mt. Meru in Tanzania.
- Mt. Ngorongoro in Tanzania is the largest caldera in Africa.

**Note; Lake Shala** is the largest caldera lake in Africa.

- Mt. Longonot in Kenya.
- Mt. Mengai in Kenya.

### Crater lakes

- They are lakes formed when water collects in craters of dead volcanoes.
- Crater lakes were formed as a result of **volcanicity**
- They are found on tops of dead Volcanic Mountains.

### Examples of crater lakes in Africa

- L. Nyungu .
- L. Katabaganda.
- L. Muhavura.
- L. Panjam in Nigeria.
- L. Nyamununka in Kasese.
- L. Nyakasura in Fort-Portal.
- L. Munyanyange
- L. Bosumtwi in Ghana.
- Lake Katwe in Kasese.

### **Lava dammed (blocked) lakes:**

- They are lakes formed when lava from an active volcano dams / blocks a flowing river and water collects to form a lake.

### **Examples of lava dammed / lava blocked lakes in Africa;**

- L. Bunuyonyi – Uganda.
- L. Mutanda – – Uganda.
- L. Butera – – Uganda.
- L.Kivu in Rwanda and DRC.
- L.Nios in Cameroon.
- L. Muhondo– Uganda.
- L. Mulehe– Uganda.
- L. Ndalaga – Uganda.

**NB: L. Bunyonyi** is one of the deepest lakes in Uganda. It is a tourist attraction due to its **blue water**.

**L.Tanganyika** is the longest and deepest lake in Africa.

### **Glacial lakes (cirques):**

- They are formed by **glacial erosion** on the sides of snow-capped mountains.
- **Glaciation** is ice in motion./ flowing ice.

### **Examples of cirques are on Mt Rwenzori.**

- L. Speke – Mt Rwenzori Uganda
- L. Teleki – Mt Rwenzori Uganda.

**NB.** The flow of melting snow results into rivers called **Glacial Rivers**.

### **Lagoon lakes:**

- **Lagoon lakes** are formed when sea water is separated by mud and sand.

### **Examples of lagoon lakes in Africa.**

- L. Nabugabo in Uganda, Lake Igela in Ghana.  
Lake **Igelais** is the biggest lagoon lake in Africa.
- Lake Keta in Ghana,  
Lake Venetian at the Mediterranean sea

### **Note.**

There are many lagoon lakes in West Africa because the coast of West Africa **has many in-lets**.

### **Cities in West Africa built on islands in Lagoons.**

- Abidjan in Ivory Coast.
- Lagos in Nigeria.
- Durban in South Africa.

## Activity

1. How were volcanic lakes formed?

.....

2. Give any two categories of Volcanic lakes.

(i).....(ii).....

3. What is a lagoon lake?

.....

4. Give a reason why the coast of West Africa has many lagoons.

.....

5. Name the biggest Lagoon Lake in Africa.

.....

6. Mention any two examples of creator lakes in Africa.

(i).....(ii).....

7. What is glaciation?

.....

8. Give any two glacial lakes in Africa.

(i).....(ii).....

## Lesson 17

### A MAP SHOWING MAJOR RIVERS AND LAKES OF AFRICA:



### **Lakes:**

L. Victoria.  
L. Kyoga.  
L. Albert.  
L. Tanganyika.  
L. Turkana.  
L. Chad.  
L. Nasser.  
L. Kariba.  
L. Tana

L. Volta

### **Rivers:**

R. Nile.  
R. Orange.  
R. Limpopo.  
R. Congo.  
R. Zambezi.  
R. Niger    R. Gambia  
8. R. Volta  
9. R. Sene

### **Activity.**

1. How are lava dammed lakes formed?

.....

2. Mention two examples of down warped lakes in Africa.

(i).....(ii).....

3. Give any two examples of lava blocked lakes in Africa.

(i).....(ii).....

4. In which way were rift valley lakes formed?

.....

5. How is lake Albert similar to the rift valley in terms of formation?

.....

### **Lesson 18**

#### **Man-made lakes:**

- They were formed by **man's activities**.
- Man-made lakes are formed as a result of dam construction.

#### **Examples of man-made lakes through dam construction on a river.**

- L. Volta on R. Volta (Ghana) is the largest man-made lake in Africa.
- L. Kariba on R. Zambezi (Zambia).
- L. Nasser R. Nile (Egypt).
- L. Kainji in Nigeria.

### **Why areas around L. Victoria are densely populated:**

- The soils are fertile for growing crops.
- There is reliable rainfall.
- There is fishing Activity.

### **Importance of lakes:**

- They are a source of fish
- They provide water for irrigation, industrial and domestic use
- They are used for transport.
- They are a home/habitat of wild animals.
- They attract tourists who bring foreign exchange.
- They help in rainfall formation.
- They are mining areas e.g. sand, salt, soda ash, ammonia, etc. Ammonia is mined in L. Nyamununka.
- They are used for recreation.
- They control floods.
- Lakes are used for study purposes.

### **Problems faced by people who live around lakes:**

- There are many disease vectors which spread diseases to people.
- Floods may occur and destroy people's live and property.
- They cause cold weather.
- There are many forests around which act as hiding places for criminals
- Lakes lead to death of people by drowning.
- Strong waves on lakes make water vessels to capsize.

### **Problems facing lakes:**

- Pollution from dumping/fishing.
- Waterweeds e.g. water hyacinth, Najjahoroh.
- Prolonged drought which reduce on water levels.
- Over use of water from lakes.
- Over fishing / indiscriminate fishing.

- **Silting**-is the collection of sand and mud at the bottom of a water body caused by soil erosion.
- **Silting** makes a water body **shallow**.

**Major economic activities carried out in and around lakes.**

- |              |                      |
|--------------|----------------------|
| ➤ Fishing.   | ➤ Industrialization. |
| ➤ Transport. | ➤ Mining.            |
| ➤ Trade.     | ➤ Crop farming.      |
| ➤ Tourism.   | ➤ Animal rearing.    |

**Activity**

1.How were man-made lakes formed?

.....

2.Name the largest man-made lake in Africa.

.....

3.Mention any two man-made lakes in Africa.

(i).....(ii).....

4.State any two problems facing lakes in Africa.

(i).....(ii).....

5.Give any two importance of lakes to people.

(i).....

(ii).....

6.In which two ways are lakes dangerous to people?

(i).....

(ii).....

7.For what reasons are the shores of lake Victoria densely populated?

(i).....

(ii).....

**Lesson 19**

**Influence / effects of physical features on people.**

- Mountains have fertile soils which support crop growing.
- People settle on slopes of mountains.
- Peaks of high mountains do not favour human settlement because they are too cold.
- Plain areas support nomadic pastoralism due to the presence of enough pasture.
- Many people live around lakes and rivers because they have fertile soils for crop growing.
- Rivers and lakes support the fishing activity.

### **Influence of physical features on plants.**

- Peaks of high mountains have few plants because they are too cold to support plant life.
- Slopes of mountains have thick forests because of fertile soil.
- Shores of lakes and river banks have thick vegetation due to plenty of water.

### **Influence of physical features on animals.**

- Water bodies are homes for aquatic animals.
- Plants have grass on which animals feed.
- Forests harbour fruit eating and climbing animals.
- Thick forests harbour a variety of fruit eating and climbing animals.

### **Care for physical features / conservation of physical features.**

#### **Mountains and highlands.**

- By practicing afforestation.
- By practicing agro-forestry.
- By carrying out bush fallowing.
- By practicing re-afforestation

#### **Lakes and rivers.**

- By planting trees around them.
- By practicing proper methods of fishing.
- By treating industrial wastes before dumping them into lakes and rivers.
- By avoiding swamp drainage.

### **Activity**

1. In which one way do physical features affect the following?

- (i) People.....
- (ii) Animals.....
- (iii) Plants.....

2. Give any two ways in which people care for physical features.

- (i).....
- (ii).....

3. How do lakes and rivers help to modify the climate of an area?

.....

4. How do lakes promote the growth of industries in an area?

.....

5. How does Lake Victoria promote inter-territorial trade?

6. Name one lake in Ethiopia that is located in Eastern arm of the great African rift valley.

## Lesson 20

### Major rivers in Africa.

- A river is a large stream of flowing water in a well-drained channel.
  - Most rivers begin from highlands, plateaus, mountains and lakes. Those areas receive plenty of rainfall which provide water to the rivers.
- Rivers flow** from areas on a higher altitude to areas on lower altitude.

### Most rivers end in;

- Lakes.
- Swamps.
- Oceans.
- Seas

### Examples of rivers in Africa.

| River         | Length  | Main tributary (ies)                                | Source                                  | Nature of mouth |
|---------------|---------|-----------------------------------------------------|-----------------------------------------|-----------------|
| Nile          | 6500km  | Atbara, Blue Nile, R. Bahr-el-Ghazel                |                                         | Delta           |
| Congo (Zaire) | 4800km  | Ubangi, Kasai, Lukaga, Lualaba                      | Southern rift valley and Angola plateau | Estuary         |
| Niger         | 4000 km | Benue                                               | Futa Djallon                            | Delta           |
| Zambezi       | 3000 km | Linyonti, R. Kafue                                  | Angola plateau                          | Delta           |
| Limpopo       | 1700 km | Korocodile, Enruvuhu, Magalawena, Suna, Singuendeze | High veld                               | Estuary         |
| Senegal       | 1700 km |                                                     | Fouta Djallon                           | Estuary         |
| Volta         | 1100 km | White, black volta, Oti                             | Burkina Faso                            | Estuary         |
| Orange        | 2100 km | Vaal, Modder, Caledon                               | Drakensberg mts                         | Estuary         |

### Multipurpose river projects in Africa.

- These are projects set on rivers to serve many purposes.
- These are projects set up on rivers to provide water for irrigation and generate electricity.



### Examples of multi-purpose river projects in Africa.

| River        | Project                  | Country    | Use                                    |
|--------------|--------------------------|------------|----------------------------------------|
| Nile         | Nalubaale Dam            | Uganda     | Generation of HEP                      |
|              | Kiira dam                | Uganda     | HEP                                    |
|              | Aswan High dam           | Egypt      | HEP                                    |
|              | El Rossiers              | Sudan      | HEP                                    |
|              | Sennar dam               | Sudan      | HEP                                    |
|              | Gezira Irrigation Scheme | Sudan      | HEP & Irrigation                       |
| Congo        | Nziro dam                | DRC        | HEP                                    |
|              | Inga dam                 | DRC        | HEP                                    |
| Niger        | Kainji dam               | Nigeria    | HEP                                    |
| Zambezi      | Kariba dam               | Zambia     | HEP                                    |
|              | Kafue dam                | Zambia     | HEP                                    |
|              | Cabora Bossa             | Mozambique | HEP & Irrigation                       |
| Volta        | The Volta Scheme         | Ghana      | HEP & fishing / irrigation & transport |
|              | Akasombo dam             | Ghana      | HEP                                    |
|              | Kpong dam                | Ghana      | HEP                                    |
| Tana         | Seven forks scheme       | Kenya      | HEP                                    |
|              | Grand falls dam          | Kenya      | Irrigation                             |
|              | Kamburu dam              | Kenya      | Irrigation                             |
|              | Mutonga dam              | Kenya      | Irrigation                             |
|              | Masinga dam              | Kenya      | Irrigation                             |
|              | Gitaru dam               | Kenya      | Irrigation                             |
|              | Kindaruma dam            | Kenya      | HEP                                    |
|              | Kiambere dam             | Kenya      | Irrigation                             |
| Orange river | Vaal dam                 | S. Africa  | HEP                                    |
|              | Verwoed dam              | S. Africa  | HEP                                    |
| Pangani      | Pangani dam              | Tanzania   | HEP                                    |
| Rufiji       | Mtera dam                | Tanzania   | Irrigation                             |
|              | Kilombero valley         | Tanzania   | Irrigation                             |

### **Other values of multi-purpose River projects**

- Multi-purpose projects help to control floods.
- Some are sources of water for transport e.g River Volta in Ghana.
- They are a source of employment.
- Some multi-purpose projects are fishing grounds.
- They promote industrial growth.

### **Factors considered when setting up multi-purpose river projects**

- Constant flow of water.
- Presence of strong rocks
- Presence of reliable market
- Presence of narrow steep sided gorge (deep valley)

### **Disadvantages of Multi-purpose river projects**

- They lead to displacement of people.
- A lot of money is spent on constructing the dam and resettling people.
- Some lines of communication are blocked when building the dam.
- They occupy big areas which would be used for other activities.

### **Activity**

1. Why do most rivers in Africa originate from highland and hills?

.....

2. What are Multi-purpose river projects?

.....

3. In which way are Multi-purpose river project dangerous to people?

.....

4. On which river are the following schemes built?

(i) Seven folks dam.....

(ii) Aswan High dam.....

(ii) Kafue dam.....

5. Give any two factors to be considered before starting a Multi-purpose river project.

(i).....(ii).....

6. State any two advantages of multi-purpose river projects.

(i).....

(ii).....

## Lesson 21

### Parts of the river /terms: used in the study of rivers.

- A **source** is where a river starts to flow.
- A **mouth** is where a river pours its water.
- A **watershed** is a stretch of highland separating two/more rivers.
- A **basin** is an area drained by a river and its tributaries.
- An **estuary** is a wide mouth of a river.
- A **delta** is a mouth of a river made up of distributaries.
- Is a place where a river divides itself into many streams as it reaches the mouth.
- A **distributary** is a small river leaving the main one.
- A **tributary** is a small river joining the main one.
- A **confluence** is a place where two or more rivers meet.
- **Meanders** are bends of rivers.
- **Contaract** are series of water falls on the course of a river.

**Note.**Deltas are formed as a result of river **deposition**.

### Types of rivers.

- Permanent rivers / Perenial rivers.
- Seasonal rivers / Annual rivers.

**Permanent** rivers are rivers that flow throughout the year.

### Examples of permanent rivers.

- R.Nile.
- R.Niger.
- R.Zambezi.
- R.Congo.
- R.Ruvuma

**Seasonal** rivers are rivers which flow only in the wet season and dry up in the dry season.

### Examples of seasonal rivers.

- R.Turkana.
- R.Laghebogal.
- R.Agago.
- R.Mpongo.
- R.Longino.
- R.Lumansi.
- R.Nyimur

### Importance of deltas.

- Deltas have fertile soil for crop growing.
- Deltas attract tourists who bring income.
- Deltas help to control floods.
- Deltas promotes mining.

### Waterfalls.

- A **waterfall** is a steep flow of a river.

### Examples of waterfalls in Africa.

- Bussa falls on river Niger in Nigeria.
- Victoria falls on river Zambezi .
- Bujagali falls, Karuma falls, Murchison falls on river Nile.

### Importance of waterfalls.

- Waterfalls attract tourists who bring income.
- Waterfalls help in **the generation of hydro-electricity**.

### Danger sof waterfalls.

- Waterfalls block transport.
- Waterfalls cause water accidents.

### Activity

1.Which feature on a river promotes tourism?

.....

2.Give any two economic values of waterfalls.

(i).....

(ii).....

3.Give any two rivers in Africa that enter their mouths in form of deltas.

(i).....(ii).....

4.What term is given to a point where a river begins to flow?

.....

5.Give the meaning of the following terms.

(i) Confluence.....

(ii)Distributary.....

6.What is a river basin?

.....

## Lesson 22

### Stages/courses of a river:

- Youthful stage / Upper stage (Torrent stage).
- Mature stage (middle stage).
- Old stage (Lower stage / Snail stage).

### Youth (torrent) stage.

- It is the first stage of the river.
- It occurs in the catchment area of the river.
- **Catchment areas** are places which receive heavy rainfall that provide water to the river.

### Characteristics of the youthful stage.

- It has many waterfalls and rapids.
- It flows in a V-shaped valley.(River gorge)
- A river flows very fast.  
It has vertical erosion
- It has a narrow gorge.(V-shaped valley)

### Features formed on the upper stage.

- Waterfalls.
- Rapids.

### Economic activities carried out on the youthful stage of a river:

- Generation of Hydro Electric Power on the waterfalls.
- Tourism.
- Fishing

**Note:** Waterfalls and dams hinder water transport (navigation) on this part of the river.

### Mature (middle) stage.

- It is the second part of the river.

### Characteristics of the middle stage of the river:

- A river flows in a U shaped valley
- A river forms meanders.
- A river flows gently.
- Many tributaries join the river at this stage.

### Economic activities carried out on the middle stage of the river.:

- Tourism.
- Transport.
- Fishing.
- Crop growing.

### **Old (plain) stage. /lower stage /snail stage.**

- It's the third and last part of the river.

### **Characteristics of the lower stage of the river:**

- The river flows slowly.
- The river forms alluvial plains.
- The river forms meanders and Ox bow lakes.
- The river forms deltas and estuaries.

### **Economic activities carried out on the lower stage of the river:**

- Mining.
- Fishing.
- Tourism.
- Transport

### **Rivers with deltas in Africa:**

- River Nile – Uganda
- R. Nyando – Kenya.
- R. Niger – Nigeria.
- R. Rufiji – Tanzania.
- R. Zambezi- Mozambique.
- R. Semliki- Uganda.

### **Activity**

1.State any two features found on the upper stage of the river.

(i).....(ii).....

2.Why are ox-bow lakes common in the lower stages of a river ?

.....

3.Give atleast two reasons why most rivers in Africa are not navigable.

(i).....

(ii).....

4.Mention the three stages of a river.

(i).....(ii).....

(iii).....

5.State a reason why water transport is difficult on river Nile at Nimule in South Sudan.

.....

6.Why do most rivers in Africa having their sources in highlands and plateaus ?

.....

## Lesson 23

### River Nile.

- It's locally known as **Kiira**.
- It flows Northwards because the North is on a lower altitude.
- It begins from **Lake Victoria** in Uganda.
- It flows through Sudan, Egypt and pours it's water into the **Mediterranean Sea**.
- It ends in a **delta**.
- Its main tributaries are **Blue Nile** and **Atbara**.
- Its main distributaries at the delta are **Rosetta** and **Damieta**.

### Nile valley countries.

- These are countries through which river Nile, its tributaries and distributaries flow.

### Examples of Nile valley countries.

- Uganda.
- South Sudan.
- Sudan.
- Egypt.
- Ethiopia.

### Main dams / power stations on river Nile.

- Nalubaale power station – Formerly, Owen falls dam (Uganda)- HEP
- Sennar dam (Sudan)- Irrigation.
- Rosseires dam (Sudan)- Irrigation.
- Aswan high dam (Egypt) – HEP.( Led to the formation of L. Nasser)

### Problems caused by river Nile.

- Floods which destroy people's property.
- Dangerous wild aquatic animals like crocodiles which attack people.
- Suds-floating vegetation which block water transport.

### Countries to which Uganda exports her Hydro-Electricity.

- Kenya
- Tanzania.
- Rwanda.
- DRC.

River Nile is called the **life and blood of Egypt** because the people of Egypt depend on its water for irrigation and domestic work.

### **River Zambezi.**

- It begins from Northern Zambia and the Angolan plateau.
- It flows through Mozambique and makes its delta in the Indian Ocean.
- **Victoria falls** are located on river Zambezi.
- **Victoria falls** were named by Dr. David Livingston.

### **Dams on river Zambezi include:**

- Kariba dam -Zambia.
- Kafue dam -Zambia.
- Cabora Bassa dam – Mozambique.

The construction of Kariba dam led to the formation of **L. Kariba**.

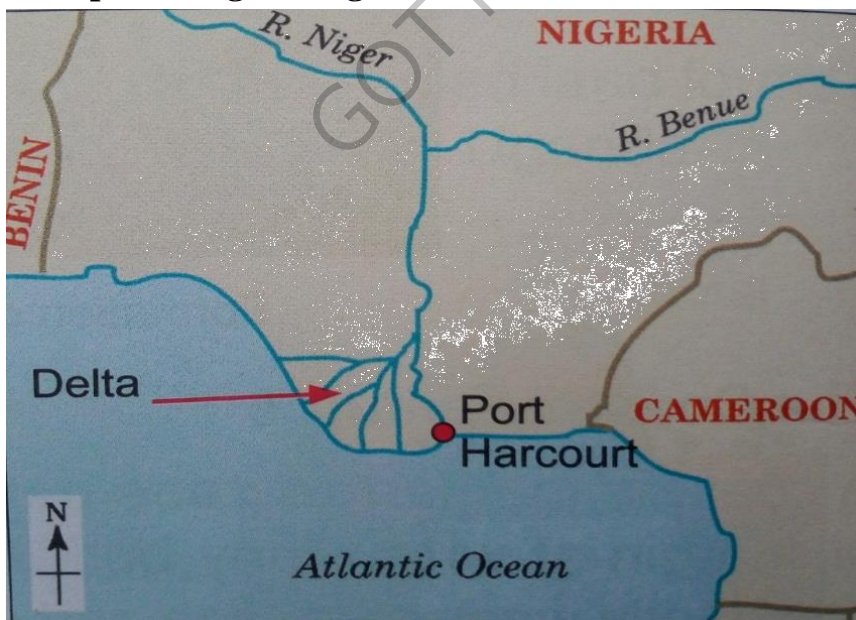
### **River Niger.**

- R. Niger starts from the **Fouta Djallon plateau** in Guinea.
- It flows through Nigeria and pours its water into the **Atlantic ocean** in form of a delta. Its major tributary is **River Benue**
- **Bussa falls** are located on River Niger.

### **Economic importance of river Niger.**

- Its delta has oil deposits which promote mining at **Port Harcourt**.
- It provides water for industrial use.
- It provides hydro-electric power from **Kainji dam**.
- It is used for water transport since it has a few falls.

### **A map showing the Niger delta.**





### **Major seaports of Nigeria.**

- Port Lagos
- Port Harcourt.
- **Port Harcourt** has many oil deposits.

### **Importance of the Niger delta.**

- The Niger delta promotes oil mining at **Port Harcourt** due to the presence of many oil deposits..
- The Niger delta attracts tourists who bring income to Nigeria.
- The Niger delta has fertile soil for crop growing.

### **River Volta.**

- R. Volta starts from Burkina Faso and flows South wards through Ghana and pours its water into the Atlantic Ocean.

### **The main tributaries of r. Volta are:**

- Black Volta.
- White Volta.
- **L. Volta** is the biggest lake in Ghana.  
**Lake Volta** is the biggest man-made lake in Africa.  
It was formed when **Akosombo dam** was built on R. Volta.

### **River Orange.**

- It starts from the Drakensberg Mountains in the East of South Africa.
- It flows Westwards and it pours its water into the **Atlantic Ocean**.

### **Tributaries of river Orange:**

- R.Vaal.
- R.Modder.
- R.Caledon.

### **Dams constructed on river. Orange are:**

- Verwoerd dam.
- Vaal dam.

### **River Congo.**

- It is flows through the Equatorial forests of D.R. Congo.
- It has so many tributaries of which the main two are Kasai and Ubangi.

### **River Congo carries the largest volume of water to the ocean than all other rivers of Africa because:**

- Its source is in the Equatorial rain forests which receive heavy rainfall throughout the year.
- It has very many tributaries.

### **Hydro electric dams located on river Congo.**

- Inga dam.
- Nziro dam.

### **River Ruvuma.**

- It flows into the Indian Ocean. It flows along the Tanzania – Mozambique border.
- River Ruvuma forms a natural boundary between Tanzania and Mozambique.

### **Other rivers that flow into the Indian Ocean are:**

- R. Rufiji.
- R. Pangani.
- R. Tana.
- R. Athi / Galana.

### **Activity.**

1.Name the longest river in Africa.

.....

2.What are Nile valley countries?

.....

3.Mention two examples of Nile valley countries.

(i).....(ii).....

4.Name the mouth of river Nile.

.....

5.Why river Nile is called the life blood of Egypt?

.....

6.How do rivers help to promote the industrial development in a country?

.....

7.Name the major tributary of river Niger.

.....

8.State two reasons why river Congo carries the most volume of water to the ocean.

(i).....

(ii).....

9.Mention the biggest man made lake in Africa.

.....

10.On which river is the Akosombo Dam located?

.....

## Lesson 24

### River Blue Nile:

- It is the **main tributary** of river Nile.
- It has its source in **Lake Tana** in Ethiopia.
- It joins river Nile in Sudan.

### River Limpopo

- It flows from Botswana through Mozambique and drains its water into the **Indian ocean**.
- It forms a natural boundary between **South Africa** and **Zimbabwe**.

### Other rivers in Africa.

| River                       | Country  | Mouth          |
|-----------------------------|----------|----------------|
| Rufigi,Ruvuma,Galana,Pangan | Tanzania | Indian ocean   |
| Tana,Juba,Shebele,Athi      | Kenya    | Indian ocean   |
| Mara,Yala,Nzoia,Kagera      | Uganda   | L.Victoria     |
| Gambia,Cunene,Senegal       |          | Atlantic ocean |

### Importance of rivers in Africa:

- Rivers provide water for irrigation, industrial and domestic use.
- Rivers are used for the generation of Hydro-electric power.
- Rivers help in the formation of rainfall.
- Rivers provide us with fish.
- Rivers are used for navigation.
- Rivers are a home of wild animals.
- Rivers attract tourists who bring in foreign exchange.
- Rivers are also needed for recreation e.g. swimming, etc.

### Why some rivers are not good for navigation:

- Some rivers have waterfalls.
- Some rivers have dams.
- Some rivers have suds.
- Some rivers have rocks.
- Some rivers have wild animals.
- Some rivers are shallow.
- Some rivers are narrow.
- Some rivers are seasonal.

**Dangers created by rivers:**

- Some rivers destroy life and property when they flood.
- Waterfalls and rapids hinder navigation.
- Rivers are breeding places for vectors.
- Rivers hinder the development of roads and railways.
- River developmental projects displace people.

**Advantages (importance) of dams:**

- They help to generate Hydro-electric power.
- They provide water for irrigation.
- They form lakes for fishing.
- They promote tourism.
- They form lakes for navigation.
- They create lakes for recreation.
- They create employment.

**Disadvantages of dams:**

- They destroy tourist attractions like waterfalls e.g Rippon falls at the source of river Nile.
- They cause floods.
- They hinder navigation.
- Dams displace people.
- They are expensive to construct.
- They disrupt aquatic life.

**Activity.**

1.Name the mountain range from which river Orange flows.

.....

2.Mention any two electric power dams located on river Orange.

(i).....(ii).....

3.Write any two tributaries found on river orange.

(i).....(ii).....

4.Which is the source of Blue Nile?

.....

5.Give any two rivers in Africa that pour their water in the Indian ocean.

(i).....(ii).....

6. Apart from Blue Nile, mention any other tributary of river Nile.

.....

7. Why are there no rivers in most parts of Northern region of Africa?

.....

8. State the political importance of river Limpopo.

.....

9. Give any two disadvantages of rivers to people.

(i).....

(ii).....

10. Mention any two problems facing rivers in Africa.

(i).....

(ii).....

### **TOPICAL TEST ABOUT PHYSICAL FEATURES OF AFRICA**

1. What are physical features?

.....

2. Give any two categories of physical features.

(i).....(ii).....

3. What is drainage?

.....

4. What is a plateau?

.....

5. In which way do mountains / hills promote communication in an area?

.....

6. Give the meaning of term relief.

.....

7. How are relief features different from drainage features?

.....

8. Give the three types of mountains in Africa.

(i).....(ii).....

9. Give a reason why Kabale and Kisoro districts are called the Switzerland of Africa.

.....

10. How do mountains hinder the development of a country?

.....

11. Which volcanic mountain recently erupted in DRC?

.....

12. In which way is a crater different from a crater lake?

.....

.....

13. How were inselbergs formed?

.....

14. In which way do cement factories depend on inselbergs?

.....

15. Which type of electricity is generated from hot springs?

.....

16. Give any two reasons why people are not advised to settle on the slopes of volcanic mountains.

(i) .....

(ii) .....

17. How are volcanic mountains formed?

.....

18. State the difference between active and extinct volcanic mountains.

.....

19. Which two forces led to the formation of block mountains?

(i) .....

(ii) .....

20. Why do people of Kapchorwa rear donkeys for transport?

.....

21. Why is mechanized agriculture poor in mountainous areas?

.....

22. Name any one district in Uganda which is commonly affected by landslides.

.....

23. How is Mt. Danakil different from Mt. Nyiragongo of DRC?

.....

.....

25. For which reason are there many lagoons at the coast of West Africa?

.....

26. What are coral reefs?

.....

27. What is a basin?

.....

28. What evidence is there to show that the plateau of Africa is tilted to the North?

.....

29. For what reason does river Nile flow Northwards?

.....

30. What are escarpments?

.....

31. What are Multi-purpose river projects?

.....

32. State two reasons why river Congo carries the most volume of water to the ocean.

(i).....

(ii).....

33. Why are there no rivers in most parts of Northern region of Africa?

.....

## Lesson 1

### TOPIC :3 THE CLIMATE OF AFRICA.

#### WEATHER.

- Weather is the state of the atmosphere of a place at a given time.

#### Terms used in the study of weather.

- **Climatology** is the study about climate.
- **Climatologists** are people who study about climate.
- **Meteorology** is the scientific study and recording of weather.
- **Meteorologist** is a person who studies about weather.
- **Weather forecasting** is the prediction of the future weather conditions.
- **Weather forecasting** is the foretelling of weather changes.
- **Weather station / meteorological centre** is a place where elements of weather are studied, measured and recorded.
- **Ceilometer** is an instrument used to measure the thickness of clouds in the atmosphere.

### Isolines.

- These are lines drawn on a map showing different climatic conditions.

### Different isolines.

| Name             | Meaning                                                                                 |
|------------------|-----------------------------------------------------------------------------------------|
| <b>Isobars</b>   | These are lines drawn on a map connecting places with the same atmospheric air pressure |
| <b>Isotherms</b> | These are lines drawn on a map joining places with the same temperature.                |
| <b>Isohyets</b>  | These are lines drawn on a map joining places with the same amount of rainfall.         |
| <b>Isohels</b>   | These are lines drawn on a map joining places with the same amount of sunshine.         |
| <b>Isonephs</b>  | These are lines drawn on a map connecting places with the same cloud cover.             |
| <b>Contours</b>  | These are lines drawn on a map connecting places with the same altitude/height.         |

### Conditions of weather / types of weather.

- Rainy weather.
- Cloudy weather.
- Sunny weather.
- Foggy weather.
- Windy weather.
- Humid weather.

### Elements of weather / components of weather.

- Rainfall.
- Temperature.
- Wind.
- Humidity.
- Fog.
- Sunshine.
- Air pressure.

### Activity.

1.How is weather similar to climate?

.....  
.....

2.What is a weather station?

.....

3.State the importance of weather forecasting to a farmer.

.....

4.Give any two weather makers.

(i).....(i).....

5.Why a Stevenson screen is painted white?

.....



6. Mention the reason why some weather instruments are kept in the Stevenson screen.

7. What term is given to lines drawn on a map showing places with the same atmospheric air pressure?

8. Why should a rain gauge be placed 30 metres above the ground?

## Lesson 2

### Climate.

- **Climate** is the average weather condition of a place recorded for a long time.
- **Climatic region** is an area experiencing a given type of climate.

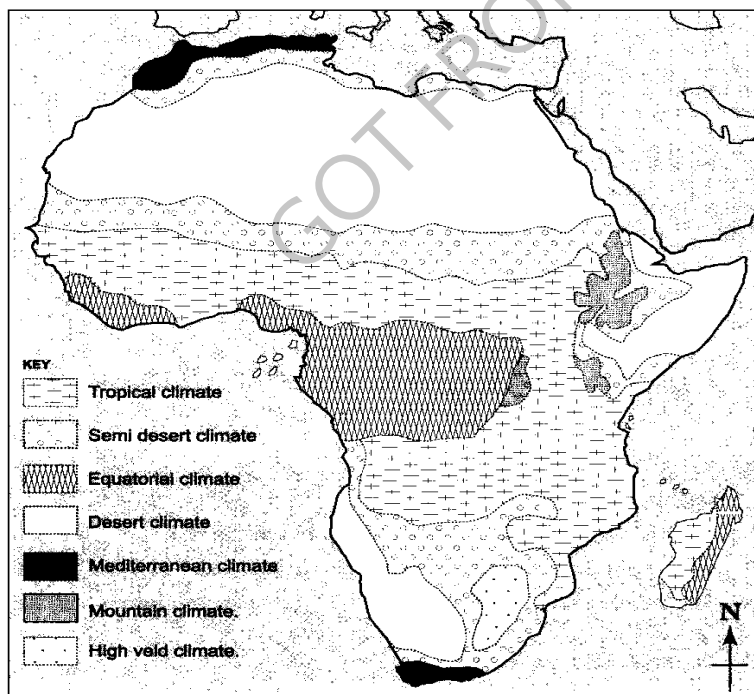
### Types / climatic regions / zones of Africa are:

- Equatorial region
- Tropical region
- Mediterranean region.
- Temperate region.
- Semi-desert region
- Desert climatic region.

### Major aspects of climate.

- Rainfall.
- Temperature.

### A map showing climatic regions of Africa.



## Activity.

1.What is climate?

.....

2.Give any four climatic zones in Africa.

(i).....(ii).....

(iii).....(iv).....

3.State any two aspects of climate.

(i).....(ii).....

4.State one similarity between climate and weather.

.....

5.Which type of climate is experienced at the South Western tip of South Africa and North Western tip of Africa?

.....

6.Which major economic activity is carried out in the arid and semi arid regions of Africa?

.....

## Lesson 3

### Tropical climate.

- **Tropical climate** is described as **warm and wet**.
- It is experienced by areas between the **Tropic of Cancer** and **Tropic of Capricorn**.
- **Tropical climate** covers the biggest part of Africa

### Characteristics of the tropical climate.

- It is warm and wet.
- Rainfall reduces as you move far away from the Equator.
- Rainfall is mainly received when the sun is overhead the Equator.
- It receives both relief and convectional rainfall.

### Some countries in Africa that experience the Tropical type of climate.

- |                |             |                 |
|----------------|-------------|-----------------|
| ➤ Uganda.      | ➤ Chad .    | ➤ Mali.         |
| ➤ Kenya.       | ➤ Rwanda.   | ➤ Zambia.       |
| ➤ Tanzania.    | ➤ Burundi.  | ➤ Malawi.       |
| ➤ SouthSudan . | ➤ Ghana .   | ➤ Burkina Faso. |
| ➤ Zimbabwe .   | ➤ Nigeria . |                 |

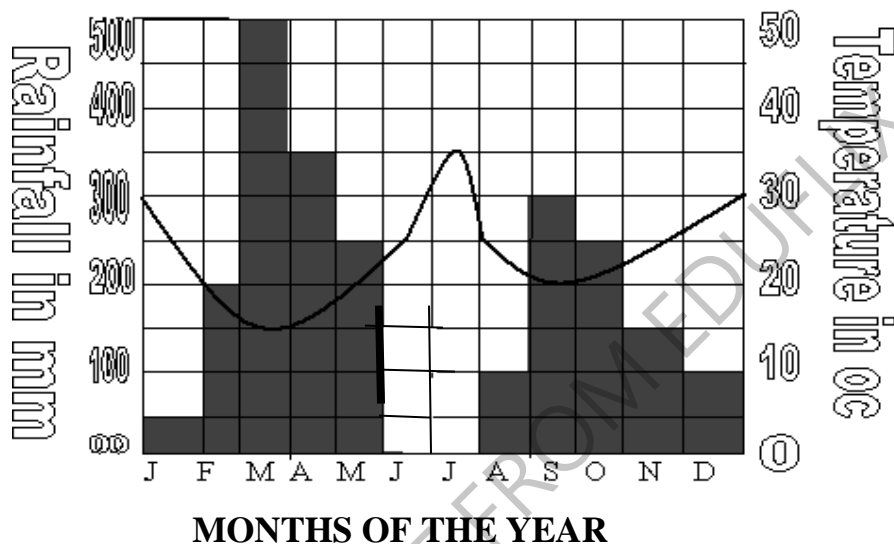
### Economic activities carried out in the Tropical climatic region.

- Tourism.
- Mining.
- Fishing.
- Lumbering.
- Hunting.
- Crop farming.
- Industrialization.
- Transport.
- Trade.

### Examples of crops grown the Tropical climatic zone.

- Maize.
- Tobacco.
- Millet.
- Coffee.
- Cotton.
- Groundnuts.
- Fruits like.
- Jackfruits.
- Passion fruits.
- Mangoes.

### The climatic graph of Tropical climate.



### Activity.

1. Which type of climate is mainly experienced between the Tropics of Africa?

.....

2. Why do areas along the Equator receive heavy rainfall?

.....

3. Give the similarity between Uganda and Rwanda in terms of climate.

.....

4. State any two economic activities carried out in the Tropical region of Africa.

(i).....(ii).....

5. Describe the Tropical type of climate.

.....

6. Give a reason why Africa is called a Tropical continent.

7. The table below shows Tropical climate.

| Months of the year | J  | F   | M   | A   | M  | J  | J  | A  | S   | O  | N  | D  |
|--------------------|----|-----|-----|-----|----|----|----|----|-----|----|----|----|
| Temperature (°c)   | 25 | 26  | 34  | 32  | 35 | 33 | 27 | 27 | 27  | 26 | 26 | 25 |
| Rainfall (mm)      | 50 | 110 | 140 | 100 | 40 |    |    | 40 | 125 | 80 | 60 | 20 |

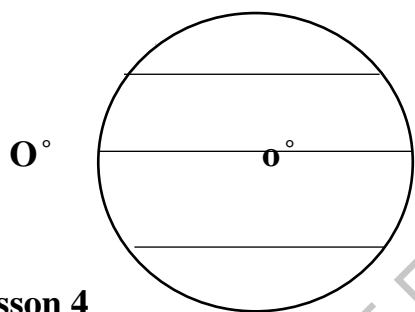
(i) Find the range of rainfall in the table above.

(ii) Name the months of the year that received no rainfall.

(i).....(ii).....

(iii) Which was the hottest month according to the table.

8. Shade the Tropical region on the diagram below.



#### Lesson 4

#### Equatorial climate

- Equatorial climate is described as **hot and wet throughout the year**.
- It is experienced by areas along the Equator.

#### Characteristics of the Equatorial climate.

- It is hot and wet throughout the year.
- **Convictional rainfall** is received in the afternoons.
- Rainfall is accompanied by **lightning and thunder**.

#### Countries in Africa that experience the Equatorial climate.

- Democratic Republic of Congo.
- Garbon.
- Central African Republic.
- Congo Brazzaville
- Equatorial Guinea.
- Sierra Leone

### Economic activities carried out in the Equatorial climatic region.

- Tourism.
- Transport.
- Hunting.
- Lumbering.
- Mining.
- Craft making.
- Fishing.
- Crop farming.
- Trading

### Crops grown in the Equatorial climatic region.

- Oil palm.
- Rubber.
- Cocoa.
- Coffee.

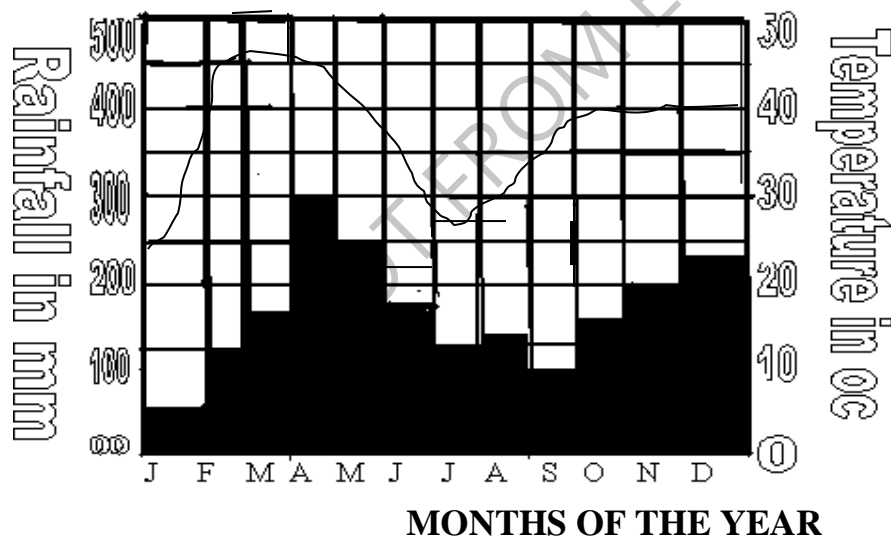
**Note** People in the Equatorial climatic zone build houses with **slanting roofs** for easy flow of rain water off the roofs.

- People put on heavy cloths due to too much coldness.

### A climatic table showing the Equatorial climate.

| Months of the year | J  | F   | M   | A   | M   | J   | J   | A   | S  | O   | N   | D   |
|--------------------|----|-----|-----|-----|-----|-----|-----|-----|----|-----|-----|-----|
| Temperature(°c)    | 1  | 20  | 22  | 24  | 24  | 22  | 20  | 18  | 19 | 20  | 24  | 22  |
| Rainfall (mm)      | 70 | 100 | 170 | 300 | 250 | 150 | 100 | 110 | 80 | 150 | 160 | 165 |

### A climatic graph showing the Equatorial climate.



### Activity.

1. How the Equatorial climate is best described?

.....

2. Which two months of the year do the Equatorial climatic regions experience heavy rainfall?

(i).....(ii).....

3. What is the relationship between temperature and rainfall on the graph above?

.....  
4.What makes the climate shown on the graph above suitable for crop growing?  
.....

5.Give any two traditional cash crops that grow well in the above climatic zone.

(i).....(ii).....

6. State the reason why the Equatorial region receives heavy rainfall throughout the year.  
.....

7.Mention the type of rainfall that is commonly experienced in the Equatorial climatic region.  
.....

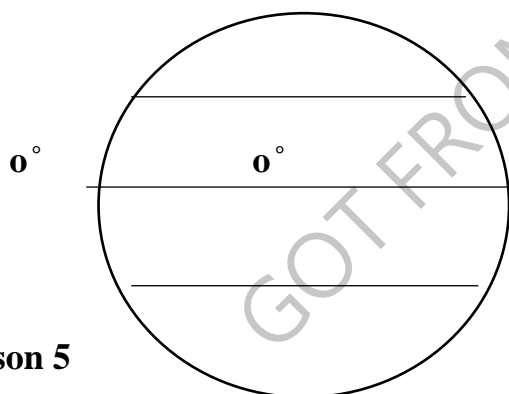
8.Name the neighbouring country of East Africa that experiences the Equatorial type of climate.  
.....

9.Give any two human activities carried out in the Equatorial climatic zone.

(i).....(ii).....

10.State one factor that favours the lumbering activity in the Equatorial climatic region.  
.....

11.Shade the Equatorial region on the diagram below.



## Lesson 5

### Mediterranean climate.

- Mediterranean climate is described as **hot and dry in summers, warm and wet winters.**
- The Mediterranean climate is experienced in **North West Africa** and South Western tip of the **Cape Province** in South Africa.

### Major seasons in the Mediterranean climate.

- |           |           |
|-----------|-----------|
| ➤ Winter. | ➤ Summer. |
| ➤ Autumn. | ➤ Spring. |

### Characteristics of each season.

| Season        | Characteristic                                |
|---------------|-----------------------------------------------|
| <b>Summer</b> | It has high temperatures. It is warm and dry. |
| <b>Winter</b> | It has heavy rainfall. It has cold winds.     |
| <b>Spring</b> | It has mild sunshine.                         |
| <b>Autumn</b> | It has moderate rainfall. It has less winds.  |

### Note.

- When the sun is overhead the Tropic of Cancer, the Northern Mediterranean region experiences **summer season**.
- When the sun is overhead the Tropic of Capricorn, the Southern Mediterranean region experiences the **summer season**.
- **Rainfall** is mainly experienced in the **winter season** and it is brought by **Westerly winds**.

### Countries in Africa that experience Mediterranean climate.

- South Africa.
- Morocco.
- Tunisia.
- Libya.
- Algeria

### Characteristics of the Mediterranean climate.

- It has cold and wet winters.
- It has dry and hot summers.
- It has warm and dry springs and autumn.

### Economic activities carried out in the Mediterranean climate.

- Viticulture.
- Tourism.
- Livestock farming.
- **Viticulture** is the growing of grapes.
- **Grapes** are used in **wine making**.
- **Winery industries** use grapes to manufacture **wine**.
- Industrialisation.
- Mining.

### Citrus fruits.

- **Citrus fruits** are juicy fruits with a rough skin.
- **Citrus fruits** are mainly grown in the **Mediterranean climatic region**.

### Examples of citrus fruits.

- Grapes, Tangerine., Oranges., Lime.abd lemons.

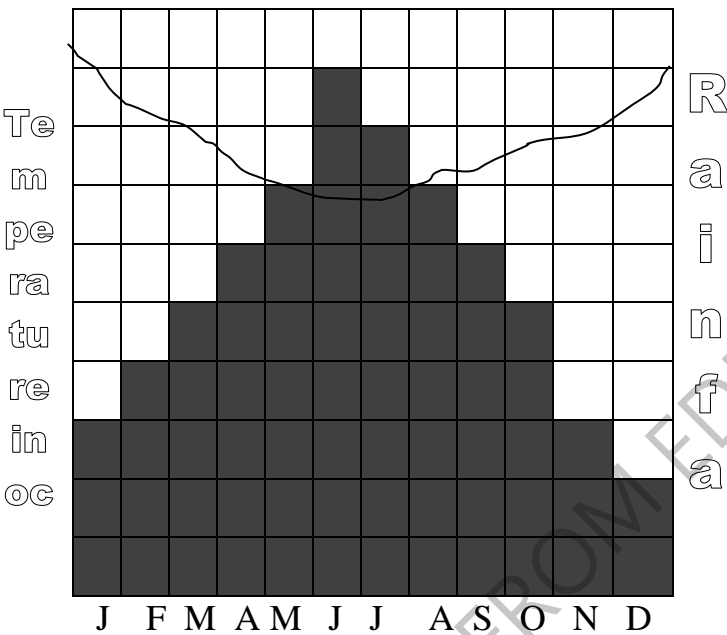
**Products from citrus fruits.**

- Juice.
- Wine.

**Note.**

- **Citrus fruits in Uganda** are grown by irrigation farming at **Kiige irrigation** scheme in Kamuli district and **Ongom irrigation** scheme in Lira district.

**Graph showing the Mediterranean climate of Cape Town.**



**MONTHS OF THE YEAR**

**A table showing the Mediterranean climate of Cape Town.**

| Months of the year | J  | F  | M  | A  | M  | J   | J  | A  | S  | O  | N  | D  |
|--------------------|----|----|----|----|----|-----|----|----|----|----|----|----|
| Temperature (°c)   | 24 | 25 | 23 | 22 | 18 | 12  | 13 | 15 | 17 | 18 | 19 | 22 |
| Rainfall (mm)      | 25 | 18 | 40 | 60 | 90 | 110 | 90 | 80 | 48 | 30 | 28 | 20 |

**Activity.**

1.Mention the major agricultural products exported from the Mediterranean climatic zone.

.....

2.Name any two seasons experienced in the Mediterranean climatic region.

(i).....(ii).....



3.How are the Westerly winds affect the Mediterranean climatic region?

.....

4.Which season is experienced when the sun is in the Southern hemisphere?

.....

5.Mention any two countries in East Africa that experience the Mediterranean type of climate.

(i).....(ii).....

6.Give any two examples of citrus fruits.

(i).....(ii).....

7.Mention any two economic activities that are carried out in the Mediterranean climatic region.

(i).....(ii).....

8.State one characteristic of Mediterranean climate.

.....

9.What is viticulture?

.....

10.Which type of industry would you set up in the Mediterranean climatic region?

.....

## Lesson 6

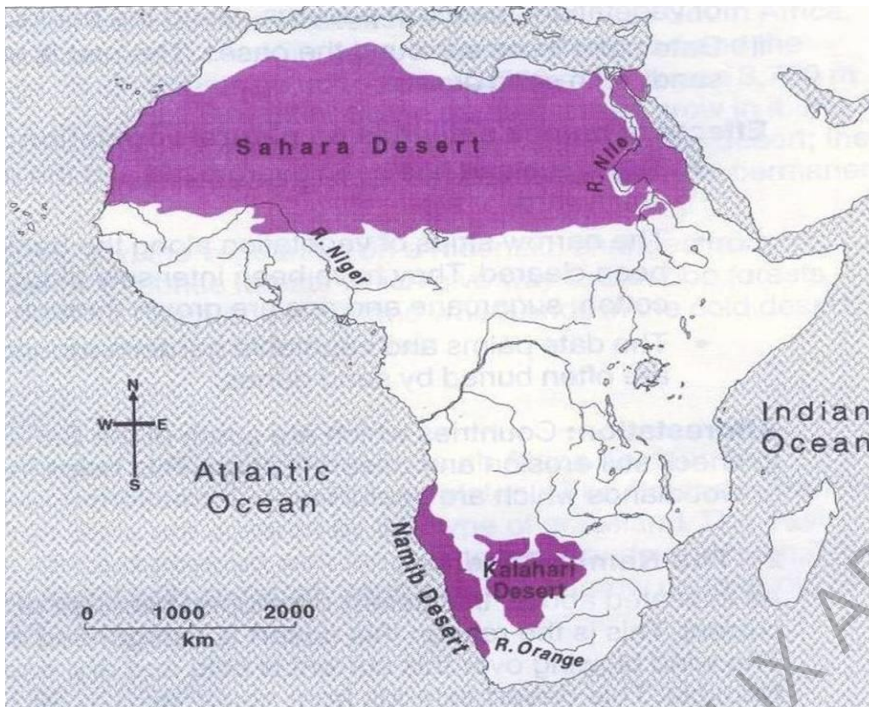
### Desert climate

- **A desert is** a large area of land with few plants, water sources and dry weather.
- **Desert climate** is described as **hot and dry throughout the year**.
- **Desert** areas are **very hot** during the day because **they receive direct sunlight**.
- **Desert areas** are **very cold** during the night because **there are not clouds in the sky**.

### Examples of deserts in Africa.

- **Sahara desert**-the hottest and biggest desert in the world.
- Kalahari Desert.
- Namib Desert.

**A map showing major deserts in Africa.**



**Characteristics of the desert climate.**

- It is hot and dry throughout the year.
- It has very cold nights and very cold days.
- It receives no or very little rainfall.

**Oases.**

- These are places where water can be obtained in desert areas.

**Importance of Oases.**

- Oases provide water for irrigation.
- Oases provide water for home use.
- Oases provide water for industrial use.

**Countries in Africa that experience desert climate;**

- |            |             |                  |
|------------|-------------|------------------|
| ➤ Egypt.   | ➤ Tunisia.  | ➤ South Sudan.   |
| ➤ Namibia. | ➤ Algeria.  | ➤ Libya Somalia. |
| ➤ Chad.    | ➤ Botswana. | ➤ Sudan.         |
| ➤ Somalia. | ➤ Niger.    |                  |

**Economic activities carried out in desert climatic region.**

- |                          |                       |
|--------------------------|-----------------------|
| ➤ Oil drilling / mining. | ➤ Crop growing.       |
| ➤ Tourism.               | ➤ Nomadic pastoralism |
| ➤ Industrialization.     |                       |

### **Tourist attractions in desert areas.**

- Sand dunes.
- Oases.

### **Animals kept in desert areas.**

- Camels.
- Cattle.

### **Importance of camels.**

- Camels are used for transport.
- Camels are sold for income.

### **Factors that make a camel survive in the desert.**

- It has a large humps that store fats which melt to give it energy for a long period without water.
- It has hard eyelids that resist sand, dust and sunrays.
- It has padded hooves that prevents it from sinking in desert sand.

### **Sources of water in desert.**

- Oases.
- River Nile.
- Lake Chad.

### **Crops grown in deserts.**

- Dates.
- Wheat.
- Barley.
- Oil palm.
- Cassava.
- Millet.

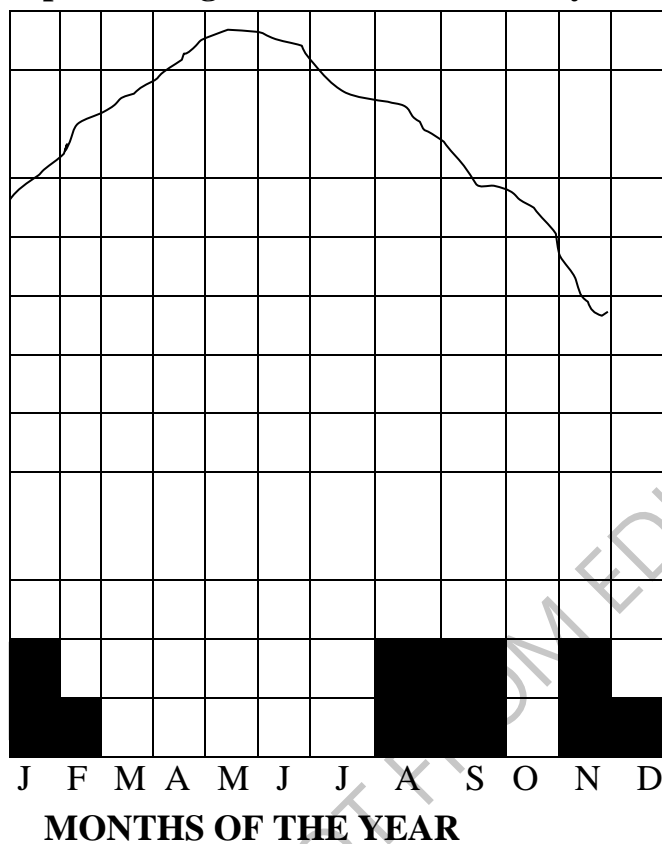
**Note .**Crops are mainly grown around **oases** by irrigation.

- People who live in the deserts **wear light white clothes** to reflect heat.  
They build houses with **flat roofs** to prevent desert sand storms from blowing off the roofs.  
**Oases** are the main sources of water in desert areas.  
**Agriculture** is only possible by irrigation.
- They build houses **painted white** to reflect heat.
- People wear **turbans** to protect themselves from desert sand storms.
- **Turbans** are round cloth worn on the heads.

**A table showing the desert climate of Libya.**

| Months of the year          | J  | F  | M  | A  | M  | J  | J  | A  | S  | O  | N  | D  |
|-----------------------------|----|----|----|----|----|----|----|----|----|----|----|----|
| Temperature ( °c)           | 15 | 16 | 18 | 20 | 25 | 28 | 30 | 29 | 28 | 25 | 22 | 20 |
| <b><u>Rainfall (mm)</u></b> | 30 | 28 | 24 |    |    |    |    |    | 28 |    | 24 | 20 |
|                             |    |    |    |    |    |    |    |    |    |    |    |    |

**A Graph showing a desert climate of Libya.**



**Activity.**

1. Describe the desert type of climate.

.....

2. What term is given to heaps of sand in desert areas?

.....

3. Why do desert regions receive very little rainfall?

.....

4. State the reason why desert areas are always very cold at night.

.....

5. Name the largest and hottest desert in Africa.

.....

6.What is an oasis?

.....

7.State any two economic activities carried out in desert areas.

(i).....(ii).....

8.Mention two countries in Africa that experience the desert type of climate.

(i).....(ii).....

9.Give one characteristic that makes a camel a suitable animal for the desert conditions.

.....

10.List any two crops grown in desert areas.

(i).....(ii).....

11.What type of rainfall is received in desert areas?

.....

## Lesson 7

### Temperate climate.

- It is experienced in the Eastern parts of **South Africa** and **Ethiopian highlands**.
- Temperate climate is described as warm wet summers and cool dry winter.
- The Temperate climate extends to **Drakensberg mountains**.
- The areas that experience Temperate climate in South Africa are called **Velds or High veld**.
- **Velds** are the Temperate grassland of South Africa.
- **Karoos** are semi-desert areas of South Africa.

### Characteristics of Temperate climate.

- It has warm and wet summers and cool dry winter.
- It receives moderate rainfall during summer.
- It has moderate temperature.

### Countries that experience the Temperate climate.

- South Africa.
- Swaziland.
- Lesotho.
- Ethiopia.

### Regions in South Africa that experience the Temperate climate.

- Natal province.
- Transvaal.
- Orange Free State.

### Economic activities done in the Temperate climatic region.

- Tourism.
- Ranch farming.
- Sheep rearing.
- Lumbering.
- Dairy farming.
- Mining.
- Crop farming.

### Animals reared in the Temperate regions.

- Cattle.
- Merino sheep for wool and mutton.
- Angora goat for mohair and milk.

### Products obtained from wool.

- (i) Woollen jackets.
- (i) Woollen blankets.
- (ii) Woollen sweaters.
- (iv) Socks.
- (v) Coats.

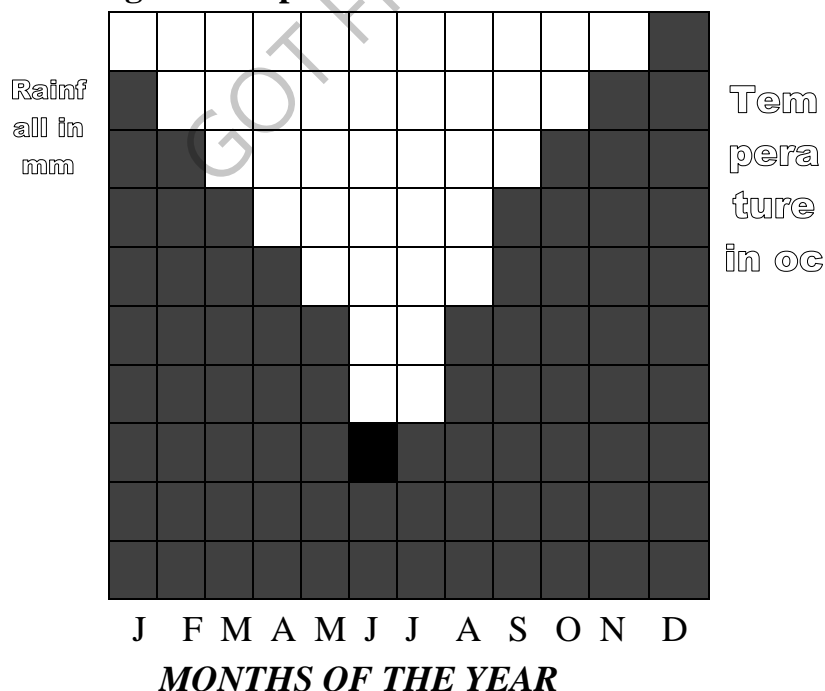
### Importance of Mohair.

- It is used for making nets.
- It is used for making sweaters, coats, socks.

### A table showing the Temperate climate of Natal in south Africa.

| Months of the year           | J   | F  | M  | A  | M  | J  | J  | A  | S  | O  | N   | D   |
|------------------------------|-----|----|----|----|----|----|----|----|----|----|-----|-----|
| Temperature( <sup>0</sup> c) | 20  | 20 | 18 | 16 | 13 | 10 | 10 | 13 | 16 | 18 | 18  | 19  |
| Rainfall (mm)                | 112 | 97 | 75 | 61 | 22 | 9  | 8  | 5  | 25 | 69 | 116 | 111 |

### A graph showing the Temperate climate.



### Activity.

1. Which type of climate is referred to as High Veld region?

.....

2. Mention the Temperate grassland of South Africa.

.....

3. What term is given to the Tropical grassland of South Africa?

.....

4. Name two provinces that experience Temperate climate.

i).....

ii).....

5. Give three economic activities carried out in the Temperate climatic region.

(i).....(ii).....

6. Describe the Temperate type of climate.

.....

7. Study the table below and answer questions about it.

| Months of the year           | J   | F  | M  | A  | M  | J  | J  | A  | S  | O  | N   | D   |
|------------------------------|-----|----|----|----|----|----|----|----|----|----|-----|-----|
| Temperature( <sup>o</sup> c) | 20  | 20 | 18 | 16 | 13 | 10 | 10 | 13 | 16 | 18 | 18  | 19  |
| Rainfall (mm)                | 112 | 97 | 75 | 61 | 22 | 9  | 8  | 5  | 25 | 69 | 116 | 111 |

(i) Which month of the year is Natal wettest?

.....

(ii) Find the temperature range of Natal on the table below.

.....

(iii) Give any two countries in Africa that experience the Temperate type of climate.

.....

(iv) Which climatic zone is suitable for sheep rearing?

.....

(v) State one factor which favours both cattle and sheep rearing in the Temperate climatic region.

.....

8. Explain the following terms;

(a) Dairy farming.....

(b) Ranch farming.....

(c) Livestock farming.....

(d) Lumbering.....

## Lesson 8

### Mountain / Montane climate.

- It is experienced by **mountainous** and **highland areas**.
- Mountain climate is described as **cool temperatures due to high altitude**.
- The temperature **increase** with **decrease** in altitude and vice versa.
- The higher you go, the cooler it becomes.

### Some areas in Africa that experience the Montane climate.

- |                  |                        |                   |
|------------------|------------------------|-------------------|
| ➤ Mt.Rwenzori.   | ➤ Mt.Elgon.            | ➤ Mt.Drakensberg. |
| ➤ Mt.Kenya.      | ➤ Mt.Mufumbiro         | ➤ Mt.Cameroon.    |
| ➤ Mt.kilimanjaro | ➤ Ethiopian highlands. | ➤ Mt. Atlas,      |

### Countries in Africa that experience Mountain climate.

- |                 |            |            |
|-----------------|------------|------------|
| ➤ South Africa. | ➤ Morocco. | ➤ Tanzania |
| ➤ Ethiopia.     | ➤ Uganda.  |            |
| ➤ Cameroon.     | ➤ Kenya.   |            |

### Characteristics of Montane climate.

- It has cool temperatures due to high altitude.
- **Relief rainfall** is the most type of rainfall received.
- The wind ward side of the mountain receives more rainfall than the lee-ward side (rain shadow)

### Economic activities carried out in the Mountain climatic region.

- |                  |                 |
|------------------|-----------------|
| ➤ Dairy farming. | ➤ Crop farming. |
| ➤ Lumbering.     | ➤ Quarrying.    |
| ➤ Tourism.       | ➤ Mining.       |

### Activity.

1.How is altitude different from latitude?

.....

2.How does altitude affect the climate of an area?

.....

3.Name the type of climate that is experienced by mountainous areas.

.....



4.State any three countries in Africa that experience the mountain type of climate.

- i). ..... iii). .....  
ii). .....

5.Why is the top of Mt. Rwenzori snow-capped?

.....

6. Which part of the mountain is suitable for irrigation farming?

.....

7. Name the two parts of the mountain.

- (i).....(ii).....

8. Why does Kasere district experience long drought periods yet it is near Mt. Rwenzori?

.....

9. State any two economic activities that are carried out in the Montane climatic region.

- (i).....(ii).....

10 .Give any one characteristics of mountain climate.

.....

## Lesson 9

### Factors influencing / affecting the climate of an area.

- |                    |                     |                   |
|--------------------|---------------------|-------------------|
| ➤ Latitude.        | ➤ Drainage.         | ➤ Nearness to big |
| ➤ Altitude.        | ➤ Vegetation cover. | water bodies.     |
| ➤ Human activities | ➤ Ocean currents    | ➤ Landmass.       |
| ➤ Relief.          |                     |                   |

### How each of the factors influence the climate of Africa?

#### Nearness to water bodies / drainage.

- Areas near water bodies receive heavier rainfall than those far from water bodies due to high rate of evaporation.
- When water bodies are heated by the sun, warm moist air raises to form clouds that bring rainfall.
- **Convectional rainfall** is always received around water bodies.

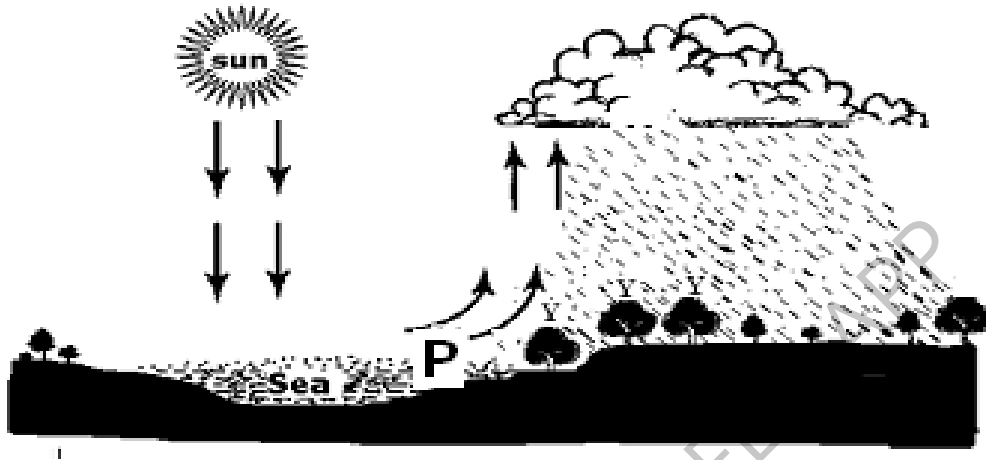
#### Processes involved in the formation of Convectional rainfall.

- Evaporation.
- Transpiration.
- Condensation.

### **Characteristics of Convectional rainfall.**

- Rainfall is usually received in the afternoons.
- Rainfall is accompanied by lightning and thunder storms.
- Convectional rainfall is received around water bodies.
- Rainfall is received in areas with high rate of transpiration and evaporation.

**A diagram showing Convectional rainfall.**



### **BREEZE.**

- A **breeze** is the movement of air from a cold region to warm region.

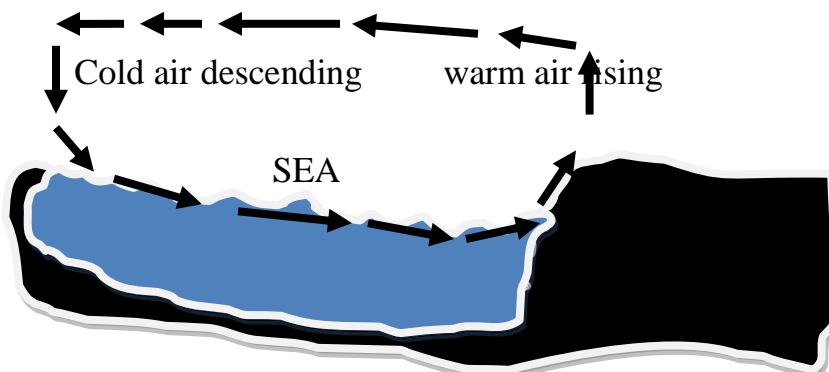
#### **Types of breezes**

- Sea breeze
- Land breeze

#### **Sea breeze.**

- This is the movement of cold air from the sea towards the land to replace the warm rising air.
- Sea breeze takes place during the **day**.
- During the day, land is heated faster than water bodies.
- The warm air on land will rise and cold air from the sea will move towards the land to replace warm rising air.

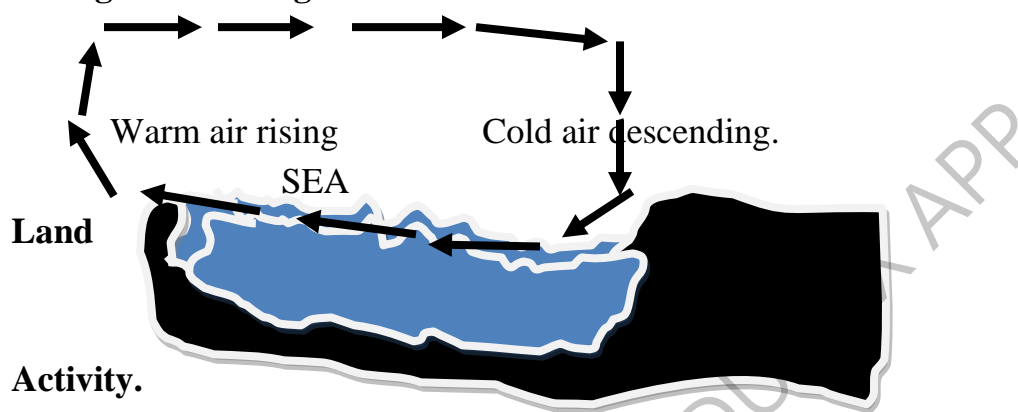
**A diagram showing a sea breeze.**



## Land breeze.

- **Land breeze** is the movement of cold air from the land towards the sea to replace warm rising air.
- Land breeze occurs during the **night**.
- At night, the land cools faster than the sea, the land becomes cold and the sea becomes warm.
- The warmer air from the sea where pressure is low rises and the cooler air from the land blow towards the sea to replace the warm air.

### A diagram showing land breeze.



### Activity.

1.State any four factors influencing the climate of Africa.

(i).....(ii).....

(iii).....(iv).....

2.Which type of rainfall is commonly received around water bodies and forests?

.....

3.State any two characteristics of Convectional rainfall.

(i).....

(ii).....

4.How do water bodies help to modify the climate of an area?

.....

5.Give any two processes involved in rain formation.

.....

6.State the difference between sea breeze and land breeze.

.....

.....

7.At what time of the day do the following breezes take place?

(i)Land breeze.....

(ii)Sea breeze.....

## Lesson 10

### Prevailing winds.

- **Prevailing winds** are winds that blow in a particular direction at a given time in the year.
- A lot of wind in an area **increases pressure** on the earth.
- **Warm moist winds** bring **rainfall** while **cold dry air** brings **fog and dry conditions**.
- **Prevailing winds warm or cold weather or rainfall.**
- Difference in atmospheric pressure causes **different temperatures**.
- Wind to blow from a place of **high pressure** to a place of **low pressure**.

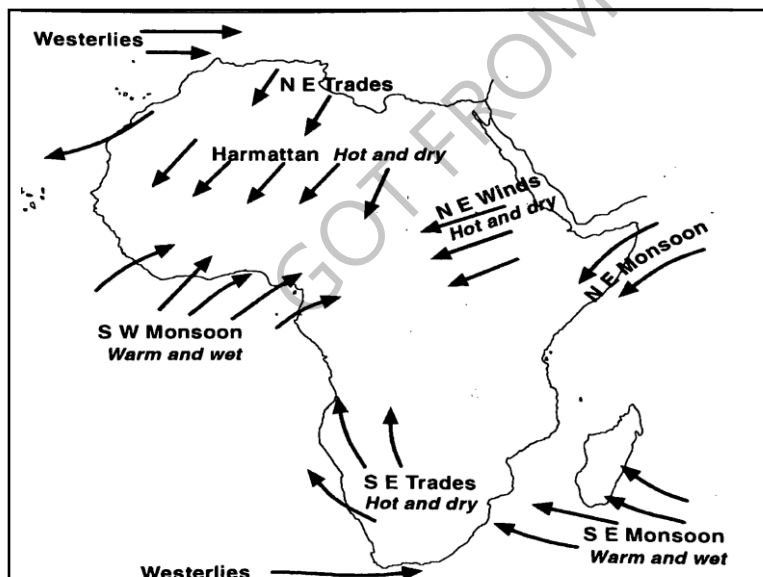
**Isobars** are lines drawn on a map joining places of the same atmospheric air pressure.

- Atmospheric pressure is measured using a **barometer**.
- **Air pressure** is measured in **millibars (mbs)**.

### Doldrums

- They are also areas where North-East and South-East trade winds meet.
- The North East and Southeast trade winds bring rainfall to the Equatorial region.

**A map of Africa showing prevailing winds.**



**Examples of prevailing winds.**

#### (i) North East Trade Winds

- They blow from Saudi Arabia towards the Horn of Africa and are dry.
- They bring no rainfall because they blow from a desert area which is dry.

**(ii)South East Trade Winds.**

- They blow over the Indian ocean.
- They bring rainfall to East Africa because they carry a lot of moisture.

**(iii)Westerly winds**

- They blow from the Indian Ocean, Atlantic ocean and the Mediterranean sea.
- They bring rainfall to the Mediterranean areas and Cape Province of South Africa.

**(iv)Harmattan winds**

- They are hot and dry because they blow over Sahara desert which is dry.
- They bring no rainfall to West Africa because they carry no moisture from Sahara desert.
- They bring dust and dry conditions to Northern parts of West Africa.

**Pressure belts.**

- **Air pressure** is force exerted on the earth's surface by air.
- Some areas in Africa have high pressure because they lie at high altitude(cool areas)while others have low pressure due to low altitude(warm areas)
- **Atmospheric air pressure** causes winds.

**Places with high atmospheric pressure.**

- Mountain tops.
- Hill tops.

**Places with low atmospheric pressure.**

- Equatorial zones.
- Rift valleys.
- Valleys.
- Plains.

**Causes of difference in air pressure.**

- Altitude.
- Latitude.
- Winds.

**Effects of difference in air pressure.**

- It causes direction of winds.
- Wind blow from a region of high pressure to a region of low pressure.
- It causes difference in temperature.
- Places of low pressure have high temperatures while places of high pressure have low temperature.

### Activity.

1.What term is given to air in motion?

.....

2.State the reason why the Horn of Africa experiences dry and hot conditions.

.....

3.Which winds bring rainfall to East Africa?

.....

4.How do the Harmattan winds affect the climate of West Africa?

.....

5.Why do the South Eastern Trade winds bring a lot of rainfall to East Africa?

.....

6.Name the winds that bring rainfall to the Mediterranean region of South Africa.

.....

7.What causes winds?

.....

8.State any two examples of prevailing winds.

(i).....(ii).....

8.What are doldrums?

.....

9.Mention any two places with high atmospheric air pressure.

(i).....(ii).....

10.What are isobars?

.....

11.In which units is air pressure measured?

.....

### Lesson 11

#### Altitude.

- **Altitude** is the height of land above the sea level.
- Temperature decrease with increase in altitude.
- Low land areas are hotter while highland areas are cooler.
- The higher you go the cooler it becomes.

### **Examples of snow capped mountains in Africa.**

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

### **Human activities.**

- Human activities like afforestation, re-afforestation, agro forestry help in the formation of rainfall.
- Human activities like deforestation, swamp drainage, bush burning lead to prolonged drought.

### **Human activities that affect the climate positively.**

- Afforestation.
- Re-afforestation.
- Conservation of swamps.
- Agro-forestry.
- Bush fallowing.

### **Human activities that influence the climate of an area negatively.**

- Swamp drainage.
- Swamp reclamation.
- Deforestation.
- Bush burning.
- Industrialization.
- Overstocking.

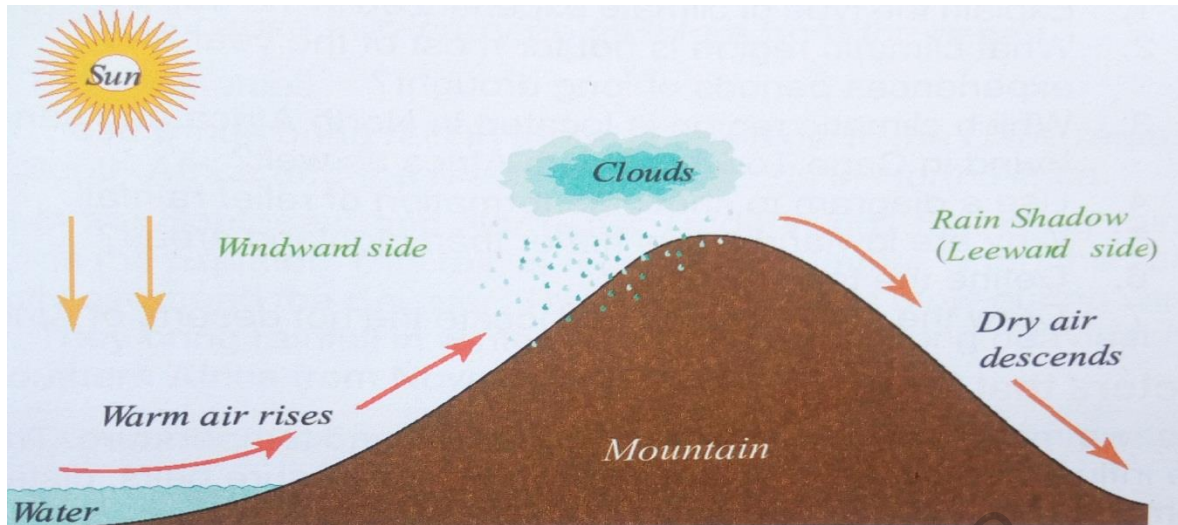
### **Relief.**

- **Relief** is the general appearance of the landscape.
- **Relief** is the nature of the land.
- Mountainous areas receive heavy rainfall while lowland areas are hot and dry.
- The windward side of the mountain receives heavy rainfall while the lee-ward side (rain shadow) receives very little rainfall.
- The lee ward side of the mountain receives very little rainfall because it receives dry winds.

### **Formation of Relief / Orographic rainfall.**

- The warm moist air rises up the mountain and the moisture condenses to form clouds which bring rain.
- The type of rainfall received in mountainous areas is called **relief rainfall**.

**A diagram showing the formation of Relief rainfall / Orographic rainfall.**



**Landmass.**

- Places along the coast and near water bodies receive heavy rainfall compared to those areas far away from water bodies.

**Activity.**

1.What term is given to the height of land above the sea level?

.....

2.Give a reason why low land areas have high temperatures.

.....

3.Mention any two mountains in Africa which are snow-capped.

(i)..... (ii).....

4.State a reason why the above peaks have snow.

.....

5.What is relief?

.....

6.Why does the lee-ward side of the mountain receive little rainfall?

.....

7.Which type of rainfall is received in highland areas?

.....

8.Mention the best side of the mountain suitable for irrigation farming.

.....

9.Why does Kasese district receive very little rainfall yet it is near Mt.Rwenzori?

.....



10. Give any two human activities that influence the climate of an area positively.

(i).....(ii).....

10. Write any two human activities that affect the climate of an area negatively.

(i).....(ii).....

11. How does altitude affect the climate of an area?

## Lesson 12

### Latitude/distance from the Equator.

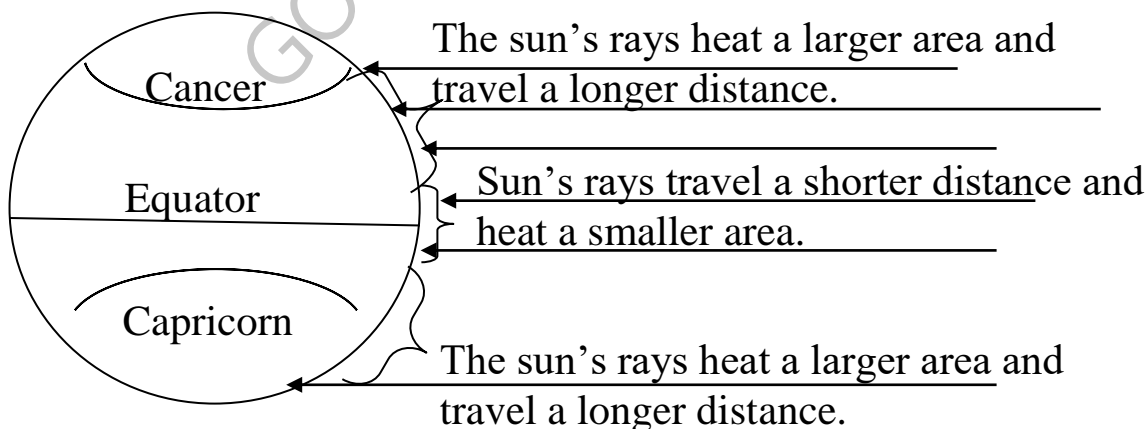
- **Latitude** is a distance of a place North or South of the Equator.
- Places near the Equator experience high temperatures because they receive direct sunshine for long hours.
- Areas far away from the Equator are cooler than those near the Equator because the sun rays hit on them diagonally.
- Areas near the Equator receive heavier rainfall than those far away from the Equator **due to high rate of evaporation and transpiration.**

### Other reasons why areas along the Equator are very hot.

- The sun's rays travel a shorter distance to the Equator than to the poles.
- The sun's rays on the Equator heat a smaller area than those on the Polar regions.

### Reason why polar regions are cooler than the Equatorial region.

- Atmospheric gases absorb heat from the sun's rays so the longer the distance travelled the more heat lost.



### Nature of vegetation.

- **Vegetation** is the plant cover of an area.
- Places with thick vegetation receive heavy rainfall.

- Areas with scanty vegetation receive very little rainfall.
- **Vegetation modifies** the climate of an area by helping in the formation of rainfall.

### **Ocean currents.**

- **Ocean currents** are masses of water which flow in a particular direction on the surface of the ocean.
- **Ocean currents** are caused by the movement of wind over a mass of water.

### **Types of winds**

- **On shore winds** are winds that blow from the sea to the land.
- **Off shore winds** are winds that blow from the land to the sea.

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

- Warm ocean currents.
- Cold ocean currents.

### **Cold ocean currents.**

- It flows from a cold area to a warm area.
- They are caused by dry winds which lead to dry conditions.

### **Examples of cold ocean currents.**

- Canary cold ocean currents.
- Somali cold ocean currents.
- Banguella cold ocean currents.
- Agulhas cold ocean currents.
- Equatorial cold ocean currents.

### **Warm ocean currents.**

- These are ocean currents that flow from warm areas to cold areas.
- They carry a lot of moisture which lead to heavy rainfall.

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

- Warm Mozambique ocean currents.
- Warm Guinea ocean currents.

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

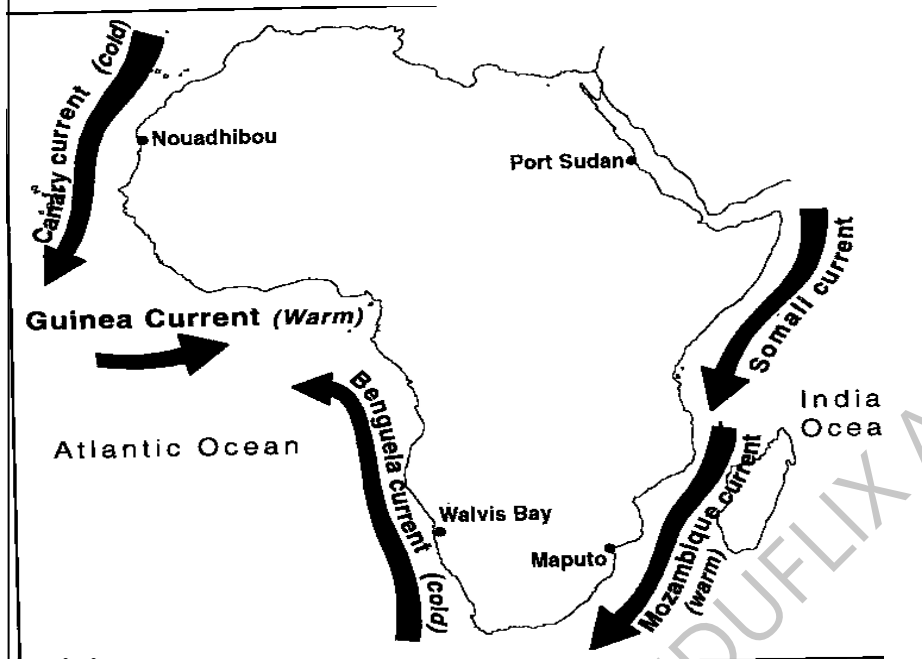
- Difference in air pressure.
- Prevailing winds.

### **Influence of different ocean currents to the climate.**

- **Warm Mozambique ocean currents**-They bring heavy rainfall to Madagascar and Eastern South Africa.
- **Warm Guinea ocean currents**-They bring heavy rainfall to West Africa.
- **Somali cold ocean currents**-They cause drought conditions to the Horn of Africa.

- **Benguela cold ocean currents**-They bring desert conditions to Kalahari and Namib deserts.
- **Canary cold ocean currents**-They cause dry conditions to North West Africa.

**A map of Africa showing ocean currents.**



**Activity.**

1. Why are areas along the Equator hotter than those far away from it?

.....

2. In which way does vegetation affect the climate of an area?

.....

3. Name two months in the year when areas along the Equator receive heavy rainfall .

(i).....(ii).....

4. What term is given to the distance of a place North or South of the Equator?

.....

5. What causes ocean currents?

.....

6. Name the ocean current that cause desert conditions to Botswana and Namibia.

.....

7. How do the warm Guinea ocean currents affect West Africa?

.....

8. State the effect of cold ocean currents to some parts of Africa.

.....

## **Lesson 13**

### **Influence of climate on human activities.**

#### **Hot areas (desert and semi desert areas.)**

- Crops are grown by irrigation.
- Animals with large humps, hard eyelids and large hooves are kept.e.g. camels.
- Nomadic pastoralism is carried out.
- Sand dunes and oases encourage tourism.
- Due to hotness, light clothes are worn.
- Houses with flat roofs are built to prevent sandstorms from blowing off the roofs.

#### **Problems faced by people who live in hot areas.**

- Shortage of food and water.
- Too much heat.
- Sand storms.
- Poor transport.

#### **Solutions to problems faced by people in hot areas.**

- People should dress white and light clothes to reduce heat.
- People should paint their houses white to reflect heat.
- Camels should be reared for transport.
- People should wear turbans to reduce dust.
- Irrigation farming should be practise to improve on food production.
- Valley dams should be dug to store water.

#### **Wet areas (Equatorial rain forests)**

- Lumbering is carried out in thick forests.
- Tourism is favoured by plenty of animals in the forest.
- Perennial crops are grown due to heavy rainfall received.
- Thick bushes and forests promote hunting.
- Houses with slanting roofs are built for the easy flow of rain water off the roofs.
- Thick clothes are worn to provide warmth.
- Thick forests make the construction of roads and railway lines difficult.

### **Problems faced by people living in wet areas/cool areas.**

- Attack from wild animals.
- Attack from pests and disease vectors e.g. Tsetse flies and mosquitoes.
- Floods.
- Poor transport network due to thick forests.
- Soil erosion.
- Landslides due to heavy rainfall.
- Lightning.
- Land pollution due to lumbering and soil erosion.

### **Solutions to problems faced by people living in cold / wet areas.**

- People should use treated mosquito nets to prevent malaria.
- People should spray bushy areas with pesticides to control disease vectors.
- By planting trees along river banks to control floods.
- By planting trees on mountain slopes to control landslides.
- Industrial wastes should be treated before disposal.
- By building houses with slanting roofs for easy flow of water off roofs.

### **Activity.**

1.Mention any two activities done in hot areas.

(i).....(ii).....

2.Why are crops in hot areas grown under irrigation?

.....

3.Give one reason why the Tauregs wear turbans.

.....

4.How are sand dunes important in desert countries?

.....

5.Mention any two causes of poor transport in wet areas.

(i).....(ii).....

6.Why are people advised to plant trees along river banks?

.....

7.How does climate affect the following?

(i)People's way of dressing.....

(ii)Building styles.....

## Lesson 14

### **Influence of Mountain climate on human activities.**

- Perennial crops are grown due to heavy rainfall received.
- Thick forests promote lumbering.
- Donkeys are kept for transport.
- Thick clothes are worn to provide warmth.
- Houses are built with slanting roofs for easy flow of rain water off roofs.

### **Problems faced by people living in Mountain climate.**

- Landslides.
- Poor transport network.
- Heavy rainfall.
- Soil erosion.
- Coldness.

### **Solutions to problems faced by people living in Mountain climate.**

- By keeping donkeys to provide transport.
- By planting trees to reduce on soil erosion and landslides.
- By building winding roads. (Wandering roads)
- By wearing heavy clothes to provide warmth.

### **Effects of Temperature and Mediterranean climate on human activities.**

- Crop growing is carried out in summer season in the Temperate climate due to heavy rainfall received.
- Crop growing is carried out in the winter season in the Mediterranean climate.
- Citrus fruits are largely grown for wineries in the Mediterranean climate.
- Plenty of pasture and cool conditions encourage animal grazing e.g. **Merino sheep** and **Angora goats** in the Temperate climate.
- Sometimes crops are grown by irrigation e.g. **Natal province** in South Africa.

### **Problems faced by people living in Temperate and Mediterranean climate.**

- Attack from pests and diseases.
- Hot sunshine in dry summers and dry winters.
- Floods.
- Pollution.

### **Solutions to problems faced by people living in Temperate and Mediterranean climate.**

- By growing fodder crops to provide animal feeds.
- By planting trees to control floods.
- By treating wastes before disposal.

### **Climatic change.**

- This is the constant variation of weather conditions for a long time.

### **Signs of climatic change.**

- Global warming.
- Lightning.
- Floods.
- Tsunamis.
- Typhoon.
- Tonados.
- Prolonged drought

### **Causes of climatic change.**

- Deforestation.
- Lumbering.
- Swamp drainage.
- Swamp reclamation.
- Bush burning.
- Industrialization.
- Emission of carbon

### **Effects of climatic change.**

- Climatic change causes shortage of food.
- Climatic change causes landslides.
- Climatic change cause wilting of crops.
- Climatic change leads to outbreak of diseases.
- Climatic change leads to loss of lives due to famine, landslides and lightning.

### **Global warming.**

- This is the constant rise of temperature worldwide

### **Causes of Global warming.**

- Deforestation.
- Industrialization.
- Emission of carbons.
- Bush burning.

**Global warming** happens when the **Ozone layer** is destroyed by excessive heat from the sun.

- **Ozone layer** is the layer of gasses that protect the earth from direct sunshine.
- When trees are cut and bushes burnt, it reduces on the vegetation that would absorb the **carbon dioxide** which destroys the Ozone layer.

**Effects of Global warming.**

- It leads to acidic rainfall.
- It leads to melting of snow on snow-capped mountains.
- It leads to excessive heat on earth.
- It leads to flooding of water bodies due to excessive water from melted snow.

**Ways of controlling Global warming.**

- By afforestation.
- By abandoning old vehicles that emit carbons.
- By carrying out agro-forestry.
- By treating fumes from industries before emission.

**Activity.**

1. Why do people wear thick clothes in montane climatic zone?

.....

2. Mention any two crops grown in Temperate climatic region.

(i).....(ii).....

3. Give two problems faced by people living in mountain climate.

(i).....

(ii).....

4. How is citrus fruit growing important in the industrial development in South Africa?

.....

5. Mention any two economic activities done in the Velds of Natal.

(i).....

(ii).....

6. Give the term to mean the long term variation of weather patterns of a place.

.....

7. Why is climatic change becoming a big threat in Africa?

.....

8. How is deforestation responsible for climatic change today?

.....



9.State one way of maintaining the climate of Africa.

.....

10.State any one danger caused by rise in world temperature.

.....

11.What caused the recent melting of snow on M. Rwenzori?

.....

12.Give any two ways the government can apply to control global warming.

(i).....

(ii).....

### **TOPICAL QUESTIONS ABOUT THE CLIMATE OF AFRICA**

1.How is weather similar to climate?

.....

2.What is a weather station?

.....

3.Why a Stevenson screen is painted white?

.....

4.What term is given to lines drawn on a map showing places with the same atmospheric air pressure?

.....

5.What is climate?

.....

6.Give any four climatic zones in Africa.

(i).....

(ii).....

(iii).....(iv).....

7.Which type of climate is experienced at the South Western tip of South Africa and North Western tip of Africa?

.....

8.Which major economic activity is carried out in the arid and semi-arid regions of Africa?

.....

9.Which type of climate is mainly experienced between the Tropics of Africa?

.....

10. Why do areas along the Equator receive heavy rainfall?  
.....
11. Give a reason why Africa is called a Tropical continent.  
.....
12. How the Equatorial climate is best described?  
.....
3. Mention the type of rainfall that is commonly experienced in the Equatorial climatic region.  
.....
4. Mention the major agricultural products exported from the Mediterranean climatic zone.  
.....
15. How are the Westerly winds affect the Mediterranean climatic region?  
.....
16. Which type of industry would you set up in the Mediterranean climatic region?  
.....
17. Describe the desert type of climate.  
.....
18. What is an oasis?  
.....
9. What type of rainfall is received in desert areas?  
.....  
.....
20. How is altitude different from latitude?  
.....
21. Why is the top of Mt. Rwenzori snow-capped?  
.....
22. Name the two parts of the mountain.  
(i).....(ii).....
23. At what time of the day do the following breezes take place?  
(i) Land breeze.....  
(ii) Sea breeze.....
24. State the reason why the Horn of Africa experiences dry and hot conditions.  
.....

25. Which winds bring rainfall to East Africa?

.....

## **TOPIC 4. THE VEGETATION OF AFRICA.**

### **Lesson 1**

- **Vegetation** is the plant cover of an area.
- **Vegetation** is all plant life growing on the earth's surface.

#### **Types of vegetation.**

- **Natural vegetation** is the plant cover of an area that grows on its own.

#### **Types of Natural vegetation.**

- Equatorial / Tropical rainforests.
- Savannah / Tropical grasslands.
- Semi-desert vegetation.
- Mediterranean vegetation.
- Temperate grasslands.(Velds)
- Mangrove forests/ swamps.
- Mountain vegetation/ Montane.
- Desert vegetation.

#### **Tropical rain forests / Equatorial vegetation**

- Tropical rainforests or Equatorial vegetation grows in Equatorial climatic region.
- Areas along the Equator experience high temperatures and receive heavy rainfall throughout the year.

#### **Countries in Africa where Equatorial vegetation grows.**

- Democratic Republic of Congo.
- Cameroon.
- Central African Republic.
- Nigeria.
- Liberia.
- Congo Brazzaville.
- Ghana .
- Togo.
- Sierra Leone.
- Kenya .
- Uganda.

#### **Animals found in the Equatorial vegetation / tropical rain forests.**

- Monkeys.
- Lions.
- Giraffes.
- Baboons.
- Chimpanzees.
- Hyenas.
- Gorillas.

### **Tree species that grow in Equatorial vegetation / Tropical rain forests.**

- Mahogany.
- Mvule (Troko)
- Rose wood.
- Green heart.
- Ebony.
- African Walnut

### **Characteristics of Equatorial / Tropical rainforests:**

- Trees have buttress roots standing above the ground.
- Trees have hard wood.
- Trees have broad leaves.
- Trees grow tall due to phototropism.
- The vegetation is evergreen.
- Trees have thick undergrowth.
- Trees take long to mature e.g. 70 years.
- Trees form **canopies**.

### **Note.**

- **A Canopy** is layer of branches that form a cover to the ground.
- **Evergreen forests** are forests which shed leaves at different times.

### **Uses of hard wood:**

- For making furniture.
- For construction of houses
- For making boats.

### **Economic activities done in the Tropical rain forests.**

- Lumbering
- Fishing.
- Crop farming
- Tourism.
- Animal rearing.
- For making coffins.
- For fuel
- For poles

### **Activity.**

1. Why are Equatorial rainforests found along the Equator?

.....

2.Name the neighbouring country of East Africa which is greatly occupied by the Tropical rain forests

.....

3.What is a canopy?

.....

4.State any one characteristics of the Equatorial rainforests.

.....

5.Why do trees in the Equatorial rain forests grow very tall?

.....

6.How are forests important to carpenters?

.....

7.Mention any two species of trees that grow in the Equatorial rainforests.

(i).....(ii).....

8.What are evergreen forests?

.....

9.Who are lumberjacks?

.....

10.Which factor favours the lumbering activity in the Equatorial vegetation?

.....

11.Mention any two countries in Africa where Equatorial vegetation grow.

(i).....(ii).....

12.Why do giraffes, monkeys, baboons and gorillas commonly found in the Equatorial vegetation?

.....

13.Give a reason why trees in the Equatorial vegetation grow tall.

.....

## **Lesson 2**

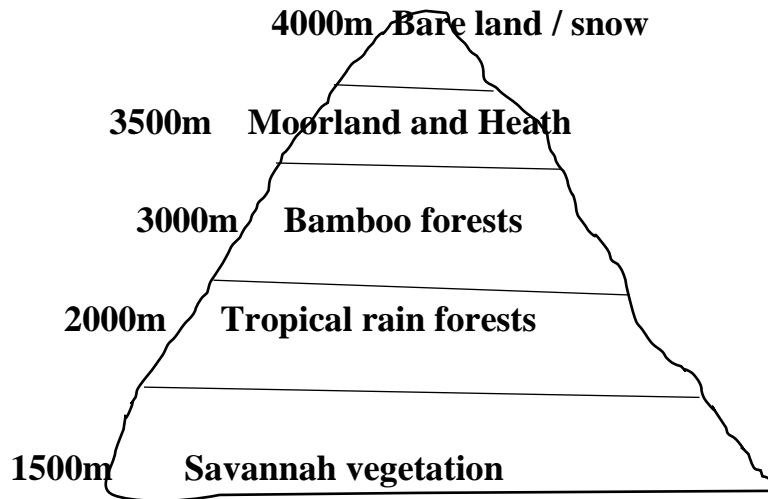
### **Montane forests (Mountain vegetation)**

- It grows on mountainous and highland areas.
- Vegetation on mountains grows in sections **according to difference in altitude.**

### **Factors affecting vegetation growth on mountains**

- Altitude
- Rainfall
- Temperature

## Mountain vegetation / vegetation belts on mountains



- **Heath** is an area of land where only rough grass and bushes grow.
- **Moorland** is an area of highland covered with grass and heath.
- **Vegetation belts** are different layers of vegetation on a mountain.
- **Vegetation** belts are determined by **altitude**.

### Areas where Mountain vegetation is found.

- Mountain Rwenzori in Uganda.
- Mt.Kilimanjaro in Tanzania.
- Drakensberg mountains in South Africa.
- Mt.Kenya.
- Mt.Elgon.
- Mt.Atlas.
- Ethiopian highlands.

### Characteristics of Montane vegetation.

- Vegetation grows in zones according to altitude.
- Trees grow tall.
- They have few plants on top of mountains because it is too cold to support plant life.
- Plants have hairy stems and leaves which help them to survive in cold temperatures.

### Factors influencing vegetation variation (difference) on mountainous areas.

- Altitude.
- Nature of the soil
- Temperature.
- Rainfall.

### Temperate grassland.

- It grows in Temperate climatic region.
- The Temperate grassland of South Africa is called **Velds** or **High velds**.
- The Tropical grassland of South Africa is called **savannah**
- Temperate grassland of South Africa are called **High veld** because they grow on high plateaus of South Africa.
- Temperate grassland mainly grows in **South Africa** and **Ethiopian highlands**.

### **Areas in South Africa where Temperate vegetation grow.**

- Orange Free State.
- Transvaal province.
- Natal in South Africa.

### **Characteristics of Temperate vegetation / grassland.**

- Trees have long roots and leaves.
- Grass grow in areas where moisture and rainfall is not enough for plant growth.
- Grass have short roots, long narrow leaves with hairy covering which help them survive in long dry seasons.
- It has few scattered short trees and shrubs.

### **Economic activities carried out in the Temperate grassland**

- Sheep rearing
- Dairy farming.

### **Note**

- **Merino sheep** and **Angora goats** are commonly reared in the Temperate grassland of South Africa.
- **Merino sheep** provide **wool** production.
- **Angora goats** provide **mohair** for making silk products.

### **Activity.**

1.How else can we call the Mountain vegetation zone?

.....

2.Name any two examples of mountains in Africa with mountain vegetation.

(i).....(ii).....

3.Write any one characteristic of Mountain vegetation.

(i).....

4.Give any two factors that influence vegetation distribution/variation on mountains.

(i).....(ii).....

5.Give any two uses of bamboo trees.

(i).....

(ii).....

6.What term is given to the Temperate grassland of South Africa?

.....

7.How do we call the Tropical grassland of South Africa?

.....

8.Name any two areas in South Africa that are mainly covered by velds.

(i).....(ii).....

9.Mention any two economic activities done in the Temperate vegetation.

(i).....(ii).....

10.State any two factors favouring sheep rearing in the Temperate grassland.

(i).....(ii).....

11.State a reason why there are no vegetation on peaks of snow capped mountains.

.....

12.How does altitude affect vegetation distribution on mountains?

.....

### Lesson 3

#### Mangrove forests. / Mangrove swamps.

- Mangrove forests grow in sea water along the **coast of Africa**.
- **Mangrove forests** are also called **Mangrove swamps** because they grow in sea water.(salty water)

#### Characteristics of Mangrove forests.

- Mangrove forests provide hard wood.
- Trees have **waterproof timber** that is used for **shipbuilding**.
- Trees grow in areas with plenty of salty water.
- Trees have buttress roots which help them to stand firm in salty water.
- Trees are evergreen.

#### Coastal countries along which Mangrove forests grow.

- |                 |                 |                    |
|-----------------|-----------------|--------------------|
| ➤ Tanzania,.    | ➤ Benin         | ➤ Western parts of |
| ➤ Sierra Leone. | ➤ Niger         | Madagascar         |
| ➤ Gabon         | ➤ Cameroon,     |                    |
| ➤ Ghana.        | ➤ Cote d'Ivoire |                    |

#### Importance of mangrove forests.

- Mangrove forests are source of hard wood timber used for ship building.
- Mangrove forests help to trap mud and other deposits that protect the low lying coast from the sea erosion.
- They are source of raw materials for ship building industries.

**Note.** Kenya exports mangrove timber to **Middle East** countries like **Saudi Arabia** and **Iran**.

#### Mediterranean vegetation.

- **The Mediterranean** vegetation is found in **North West Africa** and the **Southern tip** of South Africa.



### Characteristics of Mediterranean vegetation.

- Trees have thin leaves and are short. Thin leaves help to **reduce the rate of transpiration**.
- Trees have deep and widely spread roots.
- Trees have **wax covered leaves** which controls the rate of transpiration.
- Trees produce **soft wood** timber.

### Tree species that in the Mediterranean vegetation zone.

- Conifers.
- Pine .
- Rosewood.
- Cedar.
- Cypress.

### Countries where Mediterranean vegetation grow.

- Tunisia .
- Morocco.
- Algeria .
- Libya.
- South Africa.

**Note: Mediterranean vegetation** grows in areas which experience the **Mediterranean climate**.

### Activity.

1.Name one country in East Africa that have Mangrove forests along its coast.

.....

2.Why are Mangrove forests also called Mangrove swamps?

.....

3.What type of wood is obtained from Mangrove forests?

.....

4.How are Mangrove forests useful to fishermen?

.....

5.State any two characteristics of Mangrove forests.

(i).....(ii).....

6. How valuable are the Mangrove forests to the government of Tanzania?

.....

7.Give one characteristic of Mangrove vegetation.

.....

8.Mention any two tree species found in the Mediterranean vegetation.

(i).....(ii).....

9. Why do trees in Mediterranean vegetation produce soft wood?

10. Which industry would you advise countries with Mangrove forests to set up?

## Lesson 4

### Savannah grasslands / Savannah vegetation

- Savannah is also known as **Tropical grassland**.
- Savannah grassland covers the biggest part of Africa.
- Savana grassland grow in the **Tropical regions of Africa**.

#### Types of savannah vegetation.

- **Savannah grassland**(wet savannah)
- **Savannah woodland**(dry savannah)

**Note: Savannah grassland** is commonly found in the North and Southern **Congo basin and East Africa**.

- **Savannah woodland** grows in **Central Tanzania** and is called **Miombo woodland**.
- **Savannah woodland** is called so because it has scattered trees.

#### Characteristics of Savannah vegetation.

- Wet savannah has tall grass.
- Dry savannah has scattered trees.
- Tree are **deciduous**. They shed leaves in the dry season to reduce the rate of transpiration.
- Grass appears green in the wet season, yellow in the dry season and dry up but roots remain dormant in the soil until it rains.
- Trees have long roots which they use to tap underground water.
- The grass is short in areas that receive little rainfall and tall in areas that receive reliable rainfall.

#### Tree species that grow in Savannah vegetation.

- Acacia trees.
- Euphorbia trees.
- Baobab.

#### Countries with Savannah grassland.

- Tanzania.
- Democratic Republic of Congo.
- Uganda.
- Kenya.

### **Countries with Savannah woodland.**

- Malawi.
- Angola.
- Zambia.

### **Reason why most game parks are located in the Savannah grassland.**

- **Savannah grassland** has enough pasture, protection and shelter for wild life.
- **Savannah grassland** has a complete food chain.

### **Activity.**

1.What name is given to the Tropical grassland of Africa?

.....

2.Which type of vegetation grows in Central Tanzania?

.....

3.Why is the Miombo woodland of Central Tanzania not suitable for human settlement?

.....

4.Name the type of climate experienced in the Savannah grassland.

.....

5.Give any two types of Tropical grassland.

(i).....(ii).....

6.State any two characteristics of trees that grow in the savannah grassland.

(i).....

(ii).....

7.Mention any one characteristic of trees in Savannah woodland.

.....

8.Name the vegetation zone that covers the biggest part of Africa.

.....

9.For what a reason why most game parks are located in Savannah grassland.

.....

10.Mention the type of vegetation that covers the biggest part of Africa.

.....

11.Give any one example of wooded savannah.

.....

12. Mention the major economic activity carried out in the Miombo woodland of Central Tanzania.

.....

## **Lesson 5**

### **Desert vegetation / Arid vegetation**

- **Desert vegetation** grows in the desert climatic region.

#### **Countries where the Desert vegetation grow.**

- Libya .
- Tunisia.
- Egypt.
- Sudan.
- Chad.

#### **Areas where Desert vegetation grow.**

- Sahara desert .
- Kalahari desert .
- Namib desert.

#### **Characteristics of Desert vegetation.**

- Trees have thick barks, thin leaves and thorns which help them to reduce the rate of transpiration.
- Trees have long roots which help them to tap water from deeper underground layers.
- Trees grow near the oases.

#### **Trees that can survive in Desert conditions.**

- Acacia trees.
- Baobab .
- Euphorbia trees.
- Cacti trees.
- Poppies.

#### **Some of the crops grown around Oases in desert areas.**

- Olives .
- Citrus fruits.
- Rice.
- Wheat .
- Barley.
- Dates.
- Oil palm.

#### **Tourist attractions in the Desert.**

- **Oases** are areas in the desert where water can be found.
- **Sand dunes** these are heaps of sand in desert areas.

### **Semi-desert vegetation / Semi-arid vegetation**

- This vegetation grows in areas near deserts like Kalahari, Namib and Sahara.

#### **Countries with Semi-desert vegetation.**

- Tanzania.
- Uganda.
- Kenya.
- Ethiopia.
- Somalia.

### **Areas where Semi-desert vegetation grow.**

- North Eastern Kenya,.
- North-Eastern Uganda (Karamoja)
- Nort Eastern Tanzania.

### **Examples of plants that grow in Semi-desert vegetation.**

- Acacia trees.
- Euphobia trees.
- Cacti trees.
- Baobab trees.

### **Characteristics of Semi-desert vegetation.**

- Trees grow in areas that receive little rainfall.
- Vegetation is scanty and resistant to drought.
- There are short scattered grass and shrubs.
- Trees have thorns ,thin leaves and thick barks which help to reduce the rate of transpiration.

**Shrubs** are plants with many stems of wood growing from the underground.

### **Activity.**

1.State the major economic activity carried out in semi-desert areas of Africa.

.....

2.Mention the biggest and hottest desert in Africa.

.....

3.Why do semi desert areas have little vegetation?

.....

4.Which part of Uganda has the semi-desert type of vegetation?

.....

5.Why is North Eastern Uganda called a semi-desert area?

.....

6.State any two characteristics of the semi-desert vegetation.

(i).....

(ii).....

7.Name any two trees species that grow well in the semi-desert vegetation zone.

(i).....(ii).....

8.Name any two tourist attractions in the semi-desert vegetation.

(i).....(ii).....

9.What is an oasis?

10.Name the major mean of transport used in desert areas.

## Lesson 6

### Factors that influence vegetation distribution in Africa.

- Soils.
- Drainage.
- Altitude.
- Human activities.
- Relief.
- Government policies.
- Latitude.
- Climate(rainfall and temperature)

### How each factor influences vegetation distribution

#### Rainfall.

- It is the major factor that determines vegetation distribution.  
The amount of rainfall received in an area determines the type of vegetation that will be in that area.
- Forests are found in areas with heavy rainfall while grasslands are found in areas with low rainfall.

#### Soil.

- Fertile soil supports more plant growth than the infertile soil.

#### Temperature.

- Some plants can withstand high temperatures while others like medium or low temperatures.
- High temperatures increase the rate of evapotranspiration.

### Human activities that affect the vegetation negatively

- Charcoal burning.
- Brick baking.
- Lumbering.
- Fish smoking.
- Industrialization.
- Road construction.

Industrialization leads to **ozone depletion** by **Chloroflouro carbons (CFC)** or gases.

### Human activities that promote vegetation growth.

- Afforestation .
- Re-afforestation.
- Agro-forestry.
- Rotational grazing .
- Bush fallowing.
- Croprotection.
- Contour ploughing.

**Relief.**

- Vegetation grow according to difference in relief..

**Drainage.**

- Areas along water bodies have thick vegetation while areas far from water bodies have scanty vegetation.

**Altitude.**

- Different vegetation zones grow according to difference in altitude.
- Areas on a very high altitude have no vegetation because they are too cold to support plant life.
- Areas on a low altitude have thick vegetation due to warm temperatures.

**Activity.**

1. Give any two factors influencing vegetation distribution in East Africa.

(i).....(ii).....

2. How does soil influence the distribution of vegetation in an area?

.....

3. What is agro-forestry?

.....

4. State the difference between afforestation and re-afforestation.

.....

.....

5. What term is given to all plant life growing on the earth's surface?

.....

6. Which factor leads to variation of vegetation on mountains?

.....

7. State any two reasons why people plant trees in their compounds.

(i).....(ii).....

8. Give any two human activities that influence vegetation distribution positively.

(i).....(ii).....

9. Mention any two human activities that influence vegetation distribution negatively.

(i).....(ii).....

**Lesson 7****Importance of forests /vegetation to people and animals.**

- Forests provide timber to man
- Natural vegetation is a tourist attraction.
- Forests are habitats of wild life and people e.g. pygmies.

- Forests provide employment to the people e.g. forests rangers.
- Forests are a source of wood fuel i.e. firewood and charcoal.
- Forests are a source of herbal medicine.
- Forests control global warming by absorbing carbon dioxide and providing oxygen.
- Forests control soil erosion.
- Wattle trees are source of tannin for leather tanning industries.

### **Importance of vegetation to the environment.**

- Vegetation helps in the formation of rainfall.
- Vegetation helps to control floods.
- Vegetation helps to purify air by absorbing carbon dioxide and releasing oxygen.
- Vegetation helps to purify water by trapping soil particles.
- Vegetation beautifies the environment.
- Vegetation acts as wind breaks.

### **Disadvantages of forests.**

- Forests harbour vectors like Tsetse flies.
- Forests harbour deadly wild animals.
- Forests harbour wrong doers / criminals like rebels, thieves.
- They occupy farmland for cultivation and settlement.
- Forests are a barrier to transportation and communication.
- Forests provide poisonous herbs.

### **Swamps.**

- Swamps are waterlogged areas with vegetation.

### **Importance of swamps:**

- Swamps are used for growing crops.
- Swamps are used for fishing.
- Swamps help to control floods (water catchment areas).
- Swamps help to filter water by trapping soil particles..
- Swamps are source of water for irrigation, industrial use and domestic use..
- They are homes for wild animals.
- They are mining areas i.e. sand & clay.
- They help in rainfall formation.
- They are a source of craft materials.



**Disadvantages of swamps:**

- They harbour disease carriers e.g. snails, mosquitoes.
- They harbour wrong doers.
- They are communication barriers.
- Only few crops that need a lot of water are grown
- They are difficult to plough.

**Swamp reclamation.**

- Swamp reclamation is the restoration of swamps.

**Why people reclaim/drain swamps:**

- For crop growing.
- For industrialization.
- For settlement.
- For construction of infrastructure.

**Crops grown in swamps.:**

- Sugarcane.
- Rice.
- Yams
- Sweet potatoes.
- Maize
- Vegetables.

**Effects of swamp drainage/reclamation:**

- It leads to drought.
- It leads to desertification.
- It leads to destruction animal habitats.
- It lowers of the water table.
- It leads to environmental degradation.

**Ways people destroy of Forests/Vegetation.**

- By bush burning.
- By deforestation.
- By using poor farming methods.
- By over grazing.
- By industrialization.

**Why people cut down forests.**

- To create land for settlement due to population increase.
- To create land for agriculture.
- To get firewood (smoking fish/cooking/brick baking, etc.)
- To make charcoal.
- To get timber.
- To get poles for electricity.

### **Human activities that lead to deforestation.**

- Charcoal making
- Firewood making.
- Lumbering.
- Poor methods of farming e.g. shifting cultivation
- Fish smoking.
- Industrialization.

### **Effects of deforestation.**

- It leads to reduction of rainfall (drought)
- It leads to desertification.
- It leads to global warming.
- It leads to loss of animal habitats.

### **Ways of conserving forests.**

- By afforestation.
- By re-afforestation.
- By applying appropriate farming methods e.g.
- Bush fallowing / agro-forestry.
- Crop rotation.
- Using manure/ fertilizers.
- The youth should be persuaded not to destroy forests.
- By enacting strong laws protecting forests and implementing them.
- By sensitizing people on the value of forests.
- By rural electrification.
- By encouraging people to use alternative sources of energy e.g. coffee husks, solar energy, biogas, banana peelings, etc.

### **Environmental Degradation:**

- **Environmental degradation** is the lowering of the quality and value of the environment.
- **Swamp drainage** is the removal of water from swamps for other activities.

### **How the environment is degraded.**

- By deforestation.
- By swamp reclamation.
- By mining e.g. sand.
- By brick making.
- By bush burning.
- By dumping industrial wastes.
- By construction of infrastructure.

### **Activities carried out in swamps:**

- Crop farming.
- Mining e.g. clay, sand, etc.
- Tourism
- Collection of craft materials.
- Fishing e.g. mudfish

### **Effects of swamp drainage;**

- It leads to drought that causes desertification.
- It leads to the destruction of animal habitats.
- It leads to the lowering of the water table.

### **Activity.**

1.State one health value of vegetation to people.

.....

2.What is a swamp?

.....

3.What term is given to the changing of a swamp from its natural conditions for other uses?

.....

4.In which way does vegetation help to modify the climate of an area?

.....

5.State any two ways in which the vegetation helps to conserve wild life.

(i).....

(ii).....

6.In which one way does the vegetation help to conserve the fertility of the soil?

.....

7.Give any one way in which wattle trees are important to the leather tanning industries.

.....

8.Mention one country in East Africa where wattle trees are grown on a large scale.

.....

9.Name any two raw material obtained from swamps.

(i).....(ii).....

10.What are craft materials?

.....

11.How is land degradation different from land conservation?

.....

12.Give any one traditional cash crop grown in swampy areas.

.....

## Lesson 8

### How vegetation influences animal distribution.

#### **Reasons why wild animals live in different vegetation zones.**

- They have different feeding habits.
- They have different body temperatures.
- They have different shelters.

#### **Reasons why climbing animals are found in the Equatorial vegetation.**

- Due to the presence of trees that provide shelter to climbing animals.
- Due to the presence of enough fruits they feed on.
- Due to the presence of conducive habitat for their protection.

**Note.** There are few herbivorous animals in the Equatorial vegetation because of **little grass**.

#### **Examples of animals that live in the Equatorial vegetation.**

- Baboons.
- Chimpanzees.
- Mountain gorillas.
- Elephants.
- Monkeys.
- Giraffes.

#### **Why grass eating animals (herbivorous animals) live in Savannah vegetation / grassland.**

- Due to the presence of enough pasture for them.

**Note.** There are **flesh eating** animals in the Savannah grassland due to the presence of preys.

#### **Animals that live in Savannah grassland.**

- Zebras.
- Leopards.
- Lions.
- Gazelles.
- Hyenas.
- Bush bucks.
- Warthogs.
- Kobs.
- Buffaloes.

#### **Why aquatic animals live in Swampy vegetation.**

- Due to the presence of water and pasture for them.
- Due to the presence of swamps which are their natural habitat.

#### **Animals that live in Swampy vegetation.**

- Crocodiles.
- Hippopotami.
- Frogs.
- Toads .
- Fish.

#### **Animal distribution in the desert and Semi-desert vegetation.**

- There are only **burrowing animals** and **camels**.

**Note.** **Burrowing animals** are animals that dig holes in the ground for shelter.

- Only animals which can live long without water can be found in desert and semi-desert vegetation.

### **Animals that live in Desert and Semi-desert vegetation.**

- Camels.
- Newts .
- Kobs.
- Ostriches.
- Squirrels.

### **Reasons why hot areas have few animals.**

- There is little grass for animals.
- There are few water bodies.

### **Animal distribution in the temperate vegetation.**

- There are many herbivorous animals due to the presence of enough pasture.
- Carnivorous animals are also common due to the presence of preys.

### **Examples of wild animals found in the Temperate vegetation.**

- Gazelles .
- Wild horse.
- Antelopes.
- Zebras .
- Lions .
- Hyenas.
- Rhinoceros.
- Deer .

### **Animal distribution in mountain vegetation .**

- There are climbing and fruit eating animals due to the presence of leaves and fruits they fed on.
- There are many mountain gorillas due to the presence of bamboo forests they feed on their shoots.

### **Animals found in Mountain vegetation.**

- Mountain gorillas.
- Monkeys.
- Chimpanzees.
- Baboons.

### **Types of mammals in African game parks.**

- **Herbivorous animals** are animals that feed on **grass**.
- **Carnivorous animals** are animals that feed on **flesh or meat**.
- **Omnivorous animals** are animals that feed on **both meat and grass**. e.g. man,pigs,dogs
- **Aquatic animals/marine animals** are animals that live in water.
- **Scavengers** these are animals or birds that feed on rotten meat. e.g. hyenas, vultures.

## Activity.

1.What are omnivorous animals?

.....

2.Why do herbivorous animals live in Savannah grassland?

.....

3.State a reason why most game parks in Africa are located in the Savannah vegetation.

.....

4.Give a reason why there are no mountain gorillas in Kidepo valley national park.

.....

5.State the importance of bamboo forests to mountain gorillas.

.....

6.Give any two reasons why different animals live in different vegetation zone.

.....

## Lesson 9

### Wildlife

- **Wildlife** are all living things in their natural environment.

### Types of wildlife.

- Plants(flora)
- Animals(fauna)

### Examples of Wildlife.

- Wild animals.
- Plants.
- Reptiles.
- Insects.
- Fish.
- Birds.
- Spiders.

### Places for conservation of wildlife.

- These are places where wildlife is protected by the government.

### Places for conserving wildlife.

- National game parks
- Game reserves.
- Zoos.
- Marine parks.
- Sanctuaries.

### Note

- **Game warden** is a person in-charge of all activities in a game park or game reserve.
- **Game ranger** is a person in-charge of protecting wild animals in a game park or game reserve.
- **Bird sanctuary** is an area where wild birds are protected for breeding.

- **Animal sanctuary** is an area where endangered animal species are protected for breeding.
- **Marine parks** are large areas of land set aside by the government to preserve aquatic animals.
- **Zoos** are places where both domestic and wild animals are kept for public viewing.
- **Game** means wild animals or wild birds.

### **National game parks.**

- **A game park** is a gazetted area by the government to preserve wildlife.

### **Examples of wild animals found in National parks.**

- Hyenas,
- Buffaloes.
- Pythons.
- Mountain gorillas.
- Lions.
- Foxes.
- Elephants.
- Zebras.

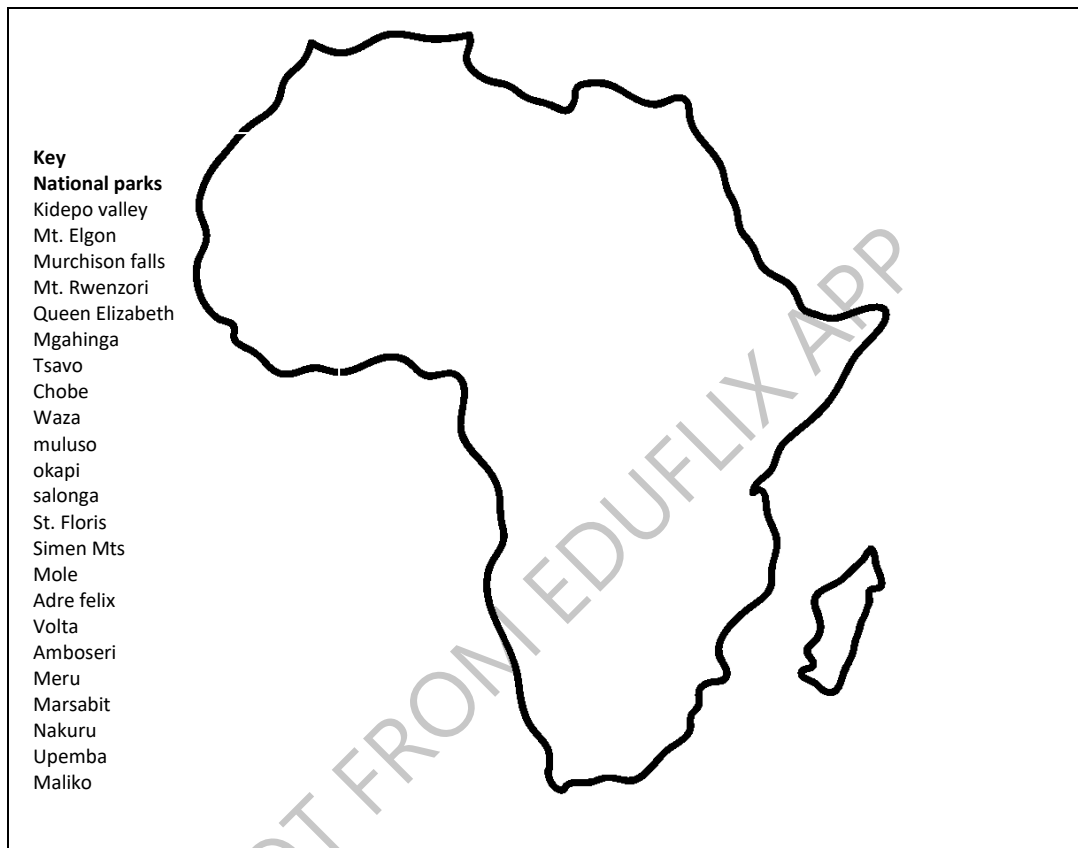
### **Some examples of game parks in Africa and famous animals / birds.**

| <b>Game park</b>        | <b>Famous for/tourist attraction</b> | <b>Location</b> |
|-------------------------|--------------------------------------|-----------------|
| Lake Nakuru N.P         | Flamingo birds                       | Kenya           |
| Tsavo N.P               | Lions                                | Kenya           |
| Kidepo valley N.P       | Ostriches                            | Uganda          |
| Queen Elizabeth N.P     | Hippos                               | Uganda          |
| Murchison fall N.P      | Crocodiles                           | Uganda          |
| Bwindi Impenetrable N.P | Mountain Gorillas                    | Uganda          |
| Mgahinga N.P            | Mountain gorillas                    | Uganda          |
| Lake Mburo N.P          | Crested cranes, flamingos etc        | Uganda          |
| Kruger N.P              |                                      | South Africa    |
| Virunga N.P             |                                      | DRC             |
| Garamba N.P             |                                      | DRC             |
| Koroo N.P               |                                      | South Africa    |
| Gorongosa N.P           |                                      | Mozambique      |
| Ras Mohammad n.p        |                                      | Egypt           |
| Mupan.p                 |                                      | Angola          |
| Awash N.P               |                                      | Ethiopia        |
| Serengeti N.p           | Bisons / wild beasts                 | Tanzania        |
| Mahale N.P              |                                      | Tanzania        |
| Amboseli N.P            |                                      | Kenya           |
| Sibiloi                 |                                      | Kenya           |
| Semlik                  | Volcanic hot springs                 | Uganda          |

## NOTE.

- **Namib-Naukluft** national park in Namibia is the biggest national park in Africa.
- **Ruahai** is the biggest national park in East Africa.
- **Murchison falls** National Park is the biggest national park in Uganda.

Show the major game parks and game reserves.



## Activity.

1. What is a game park?

.....

2. Apart from game parks, mention other two places for wildlife conservation.

.....

3. Which game park in East Africa is famous for flamingo birds?

.....

4. Mention the natural vegetation where most game parks are located.

.....

5. How is a game park different from a game reserve?

.....



6. Mention the biggest game park in Africa.

.....

7. How are game parks economically important to the governments of Africa?

.....

8. How do game parks promote trade in a country?

.....

9. State a reason why most game parks are located in the Savannah grassland.

.....

10. Give any one way how game parks influence animal distribution.

.....

11. Why are there lions in the Savannah grassland yet they do not eat grass?

.....

## Lesson 10

### Game reserves.

- A game reserve is a large area gazetted by the government to preserve both wild and domestic animals with minimum poaching allowed.

### Examples of game reserves in Africa.

| Game reserve                                                                                 | Country  |
|----------------------------------------------------------------------------------------------|----------|
| Selous, Uvanda, Kigosi, Ugalla, Rungwa, Mkomazi, Ngorongoro                                  | Tanzania |
| Masai mara, South Turkana, Losai, Marsabit, Boni, Samburu, Shimba hills, Dodori, South Kitui | Kenya    |
| Kigezi, Tooro, Semlik, Katonga, Pianupe, Bokora, Matheniko.                                  | Uganda   |

### Note.

- **Selous** is the biggest game reserve in **Africa**.
- **Pian-Upe** is the biggest game reserve in **Uganda**.

### Importance of game parks and game reserves in Africa

- They employ people as game rangers, guides etc.
- They promote tourism through which a country earns money.
- They provide market for locally made goods such as handicrafts etc.
- They are used for educational purposes and research.
- They preserve different animal species for future generations.
- They promote good relationships and co-operation between countries.
- They encourage the development of infrastructure.

### **How to maintain national parks / game reserve.**

- By conserving vegetation to provide pasture for animals.
- By improving security for both tourists and animals.
- By improving on a variety of animals and birds.
- By improving on transport and communication.
- By improving on accommodation i.e. hotels, lodges, comp sites, etc.

### **Disadvantages of national parks:**

- Game parks occupy farmland.
- Game parks displace people.
- Animals escape and kill people.
- Some animals e.g. elephants cause deserts.
- It's expensive to maintain parks.

### **Problems facing National parks.**

- Poaching.
- Drought leading to shortage of pasture and water.
- Occasional floods.
- Wild bush fires.
- Animal diseases e.g. nagana, anthrax etc.
- Wars.
- Increasing human population clearing land for settlement
- Pollution of parks e.g. cans bottles and polythene paper kill animals.

### **Solutions to the problems facing game parks.**

- By enforcing laws against poaching.
- By ensuring total security in the African countries.
- There should be fire fighting equipment.
- By employing more veterinary doctors to control animal diseases.
- By ensuring good government policies.
- By discouraging deforestation and encourage afforestation.
- By resettling people far away from game parks.

- By employing honest game rangers and wardens.

### **POACHING.**

- **Poaching** is the illegal hunting of wild animals in game parks.

### **Dangers of poaching.**

- Poaching leads to the extinction of some animal species.
- Poaching leads to animal migration from game parks.
- Poaching reduces the number of wild animals in game parks.

### **Why people carry out poaching.**

- To get meat.
- To get hides and skins.
- To get ivory .
- To get horns of rhinoceros.

### **Dangers of wild bush fires to wild life.**

- Wild bush fires destroy habitat for wild animals.
- Wild bush fires destroy pasture for wild animals.
- Wild bush fires kill wild animals.
- Wild bush fires lead to animal migration.

### **Dangers of prolonged drought to wildlife.**

- Prolonged drought dries pasture for wild animals.
- Prolonged drought leads to the migration of animals in search for pasture and water.
- Prolonged drought leaves wild animals with less protection as vegetation dries up.

### **Duties of game wardens.**

- To control poaching.
- To protect game parks.
- To control wild bush fires from destroying animals and plants.

### **Ways of caring for wild animals.**

- By protecting them in game parks.
- By treating them when sick.
- By preserving forests and swamps.
- By providing security to them using game rangers and wardens.

### **Importance of caring for wild animals.**

- It reduces the death of animals.
- It improves on the tourism industry.

- It promotes education and research.

### **Problems faced by people living near game parks.**

- Attack from wild animals.
- Destruction of crops by wild animals.
- Easy spread of animal diseases.

### **Differences between a game park and a game reserve.**

- A game park is a large area gazetted by the government to preserve wild animals while a game reserve is a large area gazetted by the government to preserve both wild and domestic animals.
- Limited hunting is allowed in game reserves while no hunting is allowed in game parks.

### **Activity.**

1.State any two ways game parks are important in Africa.

(i).....

(ii).....

2.How does a game park differ from a game reserve?

.....

3.State any two problems facing animals in game parks.

(i).....(ii).....

4.How does poaching affect the tourism industry?

.....

5.Give any two roles of game rangers.

(i).....

(ii).....

6.State any two possible solutions to the problems facing game parks in Africa.

(i).....

(ii).....

7.How is a veterinary doctor important to game parks and game reserves?

.....

8.Under which ministry are museums and game parks?

.....

9.Mention any two bodies responsible for wildlife conservation.

(i).....

(ii).....

10. Give two ways of conserving wild life.

(i).....

(ii).....

11. Mention any two reasons why people carry out poaching in Africa.

(i).....

(ii).....

12. How did the coming of Arab traders affect the number of elephants in Africa?

.....

13. In which way does poaching lead to animal extinction?

.....

## Lesson 11

### Tourism industry:

- Is the business of providing services to tourists.
- The body which governs the tourism industry in Uganda is the **Uganda Tourism Board(UTB)**

### Tourism.

- **Tourism** is the act of travelling to see new and interesting places for pleasure and study purposes.
- **Tourism** is the business of providing services to tourists.

### Services provided by the Tourism industry.

- |                   |                   |
|-------------------|-------------------|
| ➤ Accommodation.  | ➤ Transport.      |
| ➤ Entertainment.  | ➤ Education.      |
| ➤ Health service. | ➤ Communication.  |
| ➤ Security.       | ➤ Water services. |

### Why tourism is called an industry?

- It generates income to the government.
- It creates employment to the people.
- It develops remote areas.
- It earns foreign exchange to the government.

### Why tourism is called an invisible export or trade?

- Tourism earns income to the government without physical exchange of goods.
- Tourism generates income but there's no physical exchange of goods.

- Tourism generates foreign exchange but no physical goods are taken outside the country.

#### **Examples of invisible exports in Africa.**

- Tourism.
- Electricity.
- Skilled labour.

#### **Examples of tourist attractions in Africa.**

- Wildlife.
- Beautiful sceneries.
- Physical features.
- Culture.
- Climate.
- Historical sites (Stone Age sites).
- Beaches.
- Cultural sites like tombs.

#### **Factors that promote the Tourism industry in Africa.**

- Political stability.
- Good transport network.
- Good accommodation facilities.
- Availability of tourist attractions.
- Good publicity.
- Good government policies.

#### **Factors that hinder the development of the tourism industry in Africa.**

- Political instability.
- Lack of publicity / advertisement.
- Poor transport network.
- Poor government policies on tourism. Like degazetting game reserves.
- Shortage of tourist attractions.
- Shortage of funds.
- Poaching.
- Poor management.

#### **Importance of the tourism industry.**

- It creates employment to the people.
- It helps to conserve wildlife.
- It earns foreign exchange to the government.
- It leads to the development of infrastructures like transport, accommodation, recreational grounds, and Health service.

- It leads to the development of local industries.(craft industries)
- It preserves the natural beauty of an area.
- It is used to diversify the economy.
- It promotes the international friendship.
- It is a source of educational information.
- It creates market for locally manufactured goods.

### **Problems created by the tourism industry.**

- Easy spread of diseases.
- Tourism promotes immorality.
- Some tourists come as spies.
- Tourism hinders the development of infrastructure like dams on waterfalls.

### **Problems faced by the tourism industry.**

- Encroachment on game parks for settlement and farming.
- Poaching
- Wild bush fires
- Poor accommodation facilities.
- Insecurity(political instability)
- Animal diseases
- Poor public y(advertisement)

### **Solutions to the problems facing the tourism industry.**

- Poaching should be controlled.
- Infrastructure like roads should be developed.
- Africa should advertise /publicise her tourist potential.
- The masses should be sensitized on the value of conserving wild life.
- The local people should handle tourists in a friendly manner.
- New national parks should be gazetted.
- Bush burning should be discouraged.
- Income generating activities should be set up to reduce poaching.
- New species of animals should be introduced.
- Fire fighting equipment and personnel should be set up.
- Veterinary services should be provided to animals in national parks.

### Activity

1.What is tourism?

.....

2.Give any two reasons why tourism is called an industry.

(i).....

(ii).....

3.For what reason is tourism called an invisible export?

.....

4.Mention ant two invisible exports of Africa.

(i).....(ii).....

5.Write UTB in full.

.....

6.State any two tourist attractions in Africa.

(i).....(ii).....

### Lesson 12

#### Tourists.

- A **tourist** is a person who travels to new interesting places for pleasure and study purposes.

#### Types of tourists / types of tourism

- Domestic tourist / Local tourist.
- International tourist.

#### Domestic tourist.

- Is a person who visits new interesting places for pleasure and study purposes within his or her own country.

#### International tourist.

- Is a person who visits new interesting places for pleasure and study purposes in a foreign country.

### Activity.

1.Who is a tourism?

.....

2.Why is a tourist visiting Uganda given a map?

.....

3.Mention any two problems faced by the tourism industry.

(i).....(ii).....



4.How is poaching a threat to the tourism industry?

.....

5.Under which ministry are game parks and game reserves?

.....

6.Give any two services provided by the tourism industry.

(i).....(ii).....

7.Mention any two types of tourists.

(i).....(ii).....

8.Mention any two problems caused by the tourism industry.

(i).....

(ii).....

9.State two factors hindering the development of the tourism industry in Africa.

(i).....

(ii).....

10.Mention any two factors promoting the tourism industry in Africa.

(i).....(ii).....

### **Lesson 13**

#### **Influence of vegetation on population distribution.**

- **Population** is the number of people living in an area at a given time.
- **Population distribution** is the way people are spread in a given area.

#### **Types of population distribution.**

- Sparse population / low population density
- Dense population / high population density

#### **Population distribution per each vegetation region.**

#### **Equatorial vegetation region.**

##### **Reasons why the Equatorial vegetation is sparsely populated**

- It has disease vectors.
- It has poor road network.
- It has thick forests.
- It has many wild animals.

#### **Desert region**

##### **Reasons why desert areas sparsely populated**

- It is hot and dry throughout the year.
- It is poor road network.
- It has infertile soils.

## **Savannah vegetation region**

### **Reasons why Savannah is densely populated**

- The areas receive reliable rainfall.
- The areas have fertile soils for growing crops.
- They are free from disease vectors.
- They have free land for settlement.

### **Reasons why Savannah woodland of Central Tanzania is sparsely populated.**

- It is infested with tsetse flies.
- It receives little rainfall.

## **Mediterranean vegetation region**

### **Reasons why the Mediterranean region is densely populated**

- It has fertile soil for growing crops.
- It has many industries which employ people.
- It has favourable climate for human settlement.

## **Mountain vegetation zone**

- It has fertile soil for growing crops.
- It receives reliable rainfall.

### **Reasons why tops /peaks of high mountains are sparsely populated.**

- The climate is too cold for human settlement.
- Some peaks of mountains are rocky /snow-capped.

## **Activity**

1. Why are mountain peaks not favourable for human settlement?

.....

2. What factor makes plant life not survive on tops of high mountains?

.....

3. For what reason do the people of Kabale wear thick clothes?

.....

4. Mention any two reasons why mountain slopes are densely populated.

(i).....

(ii).....

5. Give any two problems faced by people living on slopes of mountains.

(i).....

(ii).....

6.Which factor makes the Miambo woodland not suitable for human settlement.

.....

## **Lesson 14.**

### **Effects of big population on vegetation**

- It leads to deforestation.
- It leads to swamp drainage.
- It increases land pollution.

### **Bodies which help to conserve the vegetation**

- **NEMA**-National Environmental Management Authority.
- **NFA**-National Forestry Authority.

**NEMA** and **NFA** belong to the **Ministry of Water and Environment**.

### **Importance of conserving the vegetation.**

- It protects animals.
- It controls global warming.
- It controls soil erosion.
- Using alternative source of energy like solar helps in rain formation.

### **Ways NEMA protects the vegetation**

- By educating people about importance of protecting vegetation.
- By putting strict policies on conserving vegetation.
- By providing tree seedlings to people.
- By creating forest reserves.

### **Ways of conserving vegetation**

- By afforestation
- By agro-forestry
- By re-afforestation
- By rotational grazing
- By bush farrowing

## **Activity**

1.State any two effects of a big population to the environment.

(i).....

(ii).....

2. Give any two values of conserving vegetation.

(i).....

(ii).....

3. Mention any two farming practices which lead to vegetation destruction.

(i).....(ii).....

4. Write UWEC in full.

.....

5. In which two ways does NEMA help to conserve the environment?

(i).....

(ii).....

6. Under which ministry is NEMA and NFA ?

.....

### **TOPICAL QUESTIONS ABOUT VEGETATION IN AFRICA**

1. Why are Equatorial rainforests found along the Equator?

.....

2. Name the neighbouring country of East Africa which is greatly occupied by the Tropical rain forests

.....

3. What are evergreen forests?

.....

4. Which factor favours the lumbering activity in the Equatorial vegetation?

.....

5. Give any two factors that influence vegetation distribution/variation on mountains.

(i).....(ii).....

6. What term is given to the Temperate grassland of South Africa?

.....

7. How do we call the Tropical grassland of South Africa?

.....

8. How does altitude affect vegetation distribution on mountains?

.....

9. Why are Mangrove forests also called Mangrove swamps?

.....

10.What type of wood is obtained from Mangrove forests?

.....

11.How valuable are the Mangrove forests to the government of Tanzania?

.....

12.Why do trees in Mediterranean vegetation produce soft wood?

.....

13.Which type of vegetation grows in Central Tanzania?

.....

14.Why is the Miombo woodland of Central Tanzania not suitable for human settlement?

.....

15.For what a reason why most game parks are located in Savannah grassland.

.....

16.Mention the major economic activity carried out in the Miombo woodland of Central Tanzania.

.....

17.Name any two tourist attractions in the semi-desert vegetation.

(i).....(ii).....

18.What is an oasis?

.....

19.What term is given to all plant life growing on the earth's surface?

.....

20.Which factor leads to variation of vegetation on mountains?

.....

21.State one health value of vegetation to people.

.....

22.What term is given to the changing of a swamp from its natural conditions for other uses?

.....

23.In which way does vegetation help to modify the climate of an area?

.....

24.In which one way does the vegetation help to conserve the fertility of the soil?

.....

25. Give a reason why there are no mountain gorillas in Kidepo valley national park.

.....

26. Apart from game parks, mention other two places for wildlife conservation.

.....

27. How is a game park different from a game reserve?

.....

28. How are game parks economically important to the governments of Africa?

.....

29. How do game parks promote trade in a country?

.....

30. Why are there lions in the Savannah grassland yet they do not eat grass?

.....

31. Under which ministry are museums and game parks?

.....

32. How did the coming of Arab traders affect the number of elephants in Africa?

.....

33. In which way does poaching lead to animal extinction?

.....

34. For what reason is tourism called an invisible export?

.....

## **P.7 RELIGIOUS EDUCATION TERM ONE**

**THEME: CHRISTIANS AND THE HOLY SPIRIT**

**TOPIC: ENRICHED IN THE SPIRIT**

### **Lesson 1**

**Nature of human beings as part of God's creation**

- God created **Adam** from **dust / soil** (Gen 2:7)
- Eve was created from **Adam's rib**.
- God **breathed** into the **nostrils** of human beings.

**How God put human beings at the highest position during creation. (ways in which God made man different from other creatures)**

- God created human beings in **His own image** (Gen. 1:27).
- Human beings have a **free will** either to serve God or Satan.
- Human beings have the **ability to talk** to God through prayer.

- Human beings were created last to show their superiority over other creatures.
- God gave human beings power to rule other creatures.
- Human beings have a **large and complex brain**.
- Human beings can talk to each other.
- Human beings walk on two legs.

### Activity

1. What is creation?

.....

2. What term is given to all living things created by God?

.....

3. According to the order of creation, which creature was made the summit of creation?

.....

4. State any two characteristics of human beings as part of God's creation.

(i) .....

(ii) .....

5. From which materials did God create the following?

(i) Adam .....

(ii) Eve .....

6. What was the value of God's breath into Adam's nostrils?

.....

7. In which two ways did God create human beings in a unique way?

(i) .....

(ii) .....

### Lesson 2

#### Roles of human beings

- To look after all living things (Gen 1:26)
- To participate in God's work of creation by producing young ones (Genesis 1:28)
- To cultivate land and grow food (Gen. 2:15)

#### Animal freedoms / rights

- |                       |                            |
|-----------------------|----------------------------|
| ➤ Freedom to life     | ➤ A right to reproduction. |
| ➤ Freedom of Movement | ➤ A right to special care. |
| ➤ A right to feeding. |                            |

#### Respect, care and protection of all life including animals and plants.

- Human beings need to feed the animals.
- Provide shelter where necessary.
- Protect animals from danger.
- Treat them when they fall sick.

## Activity

1. Why were human beings created in God's image?

.....

2. What do we mean by the phrase 'We were created in God's image' yet we don't look alike?

.....

3. Give a reason why human beings are considered to be the peak of creation.

.....

4. State any two duties of human beings in God's creation.

.....

5. Give any two freedoms of animals.

(i).....

(ii).....

6. How do human beings take part in God's work of creation?

.....

7. What does the name Eve mean?

.....

## Lesson 3

**How human beings failed to live up to God's standards.**

- Adam and Eve committed the first sin called **disobedience**.
- Adam and Eve disobeyed God **by eating the forbidden fruit**.
- Eve was tempted to eat the forbidden fruit by the **serpent**.
- Eve ate the **forbidden fruit** and gave some to Adam.
- They ate the forbidden fruit because they wanted to become as wise as God.

**Consequences / results of disobedience to mankind.**

- God's relationship with human beings was broken.
- Fear amongst people.
- Embarrassment amongst people.
- Women giving birth in pain.
- Sickness and death of body, soul and spirit.
- Hard work in order to get the basic needs of life.
- Quarrels, fights among people.
- Adam and Eve were sent out of Eden.



### **How we fail to live up to God's standards today.**

- Failing to respect other people.
- Fighting with others.
- Quarrelling with others.
- Worshipping false gods.
- Murdering people.

### **Activity**

1. Where did Adam and Eve live before disobeying God?

.....

2. Why were Adam and Eve embarrassed when they realised that they were naked?

.....

3. What shows that God loved Adam and Eve very much?

.....

4. Which creature is blamed for the downfall of man?

.....

5. Why did Eve accept to eat the forbidden fruit?

.....

6. What broke God's relationship with mankind?

.....

7. In which way did Adam and Eve disobey God?

.....

8. Why is disobedience regarded as the original sin?

.....

9. Give any two consequences of sin.

(i).....

(ii).....

### **Lesson 4**

#### **God's plan of salvation**

- God planned to restore His relationship with man through His son **Jesus Christ**.
- God laid a foundation on the principle of calling His chosen people, the **Israelites**, among whom **Jesus would be born**.

**How God bridged the gap between human beings and Himself. (How God restored His broken relationship with God)**

**(i) God calls Abraham (Gen. 12:1-3)**

- God called Abraham and told him to leave his homeland **Haran** and move to the promised land of **Canaan**.
- God promised Abraham many descendants whom would become a great nation (Israel)
- Abraham obeyed God's calling.

**(ii) God rescues Israelites from Egypt (Exod. 24:3)**

- In order to start a nation where a saviour would be born, God called Moses to liberate the Israelites from slavery in Egypt to the promised land He had promised to their great grandfather Abraham.
- When Moses rescued the Israelites from **Egypt**, they realised that God is **caring**, **powerful** and **good leader**.

**(iii) God makes a covenant to with the Israelites (Exod. 19: 5-6)**

- God made the covenant of the' **Ten commandments**' with the Israelites.
- God made a covenant with the Israelites near Mt. Sinai .
- **Moses** took the blood of a lamb in a bowl and threw it on the Israelites.
- It was a seal of the covenant.
- The covenant required the Israelites to obey Him and to become His people by keeping the covenant.

**(iv) Israelites reach the Promised Land.**

- Moses **died** in the wilderness at **Mt. Nebo** because he disobeyed God.
- Moses disobeyed God **by hitting the rock** to release water instead of ordering it.
- **Joshua** led the Israelites to the promised land of Canaan.
- They settled in that land as one nation.

**God prepares his chosen people through leaders and prophets.**

- In order for God to prepare the Israelites for the coming of the saviour, God chose leaders to guide them.
- Some of these leaders were king **Solomon** and **David**.
- God chose prophets to remind the Israelites about their roles as chosen people from whom a saviour would be born.

**The following prophet preached different messages to the Israelites.**

- David – Psalms 51:10 – 13
- Amos – 5:14 – 15
- Micah – 6:8
- Isaiah 9:5-7
- Jeremiah 31:31
- Ezekiel 36:25.27

**Activity**

1.How did God prepare His plan for the restoration of the lost relationship with human beings?

.....

2.What does the name Israel mean?

.....

3.Which covenant did God make with the Israelites?

.....

4.Which messages were preached by the following prophets?

(i) Isaiah.....

(ii) Amos.....

(iii) Jeremiah.....

5.Name the first prophet to prophesy about the birth of Jesus.

.....

6.State the last prophet to prophesy about the birth of Jesus Christ.

.....

7.Who rescued the Israelites from slavery in Egypt?

.....

8.Who led the Israelites to the promised land?

.....

9.Give a reason why Moses did not reach the promised land.

.....

10.What event took place on Mt.Nebo?

.....

## Lesson 5

### Fulfilment of God's plan for salvation of man in the New Testament.

- **John the Baptist** was the last prophet to prepare people for the coming of the saviour.
- His message was “**Turn away from your sins**” (Mathew 3:1-12).
- God sends His only son to die for our sins (John 3:16)
- The birth of Jesus Christ (John 1:14)
- Jesus dies for our sins.
- Resurrection of Jesus

**Note:** The process by which God the son existed in human nature is called **incarnation**.

### Activity

1. Who spoilt God's relationship with human beings?

.....

2. Why did God plan for the salvation of human beings?

.....

3. Whom did God choose as the grandfather of all nations?

.....

4. Give a reason why God sent Jesus on earth.

.....

5. What was the last step in God's salvation of human beings?

.....

## Lesson 6

### Characteristics of Jesus as a perfect person

- He had anger.
- He was sorrowful.
- He got worried.
- He wept.
- He felt the pain.

### **Jesus as a perfect example.**

- His birth (conceived by the Holy Spirit)
- He loved all people equally.
- He never committed any sin.
- He aimed at solving rather than creating problems.
- Jesus lived a prayerful life.
- Jesus loved sinners.

## **Lessons we learn from Jesus as a perfect person**

- We learn to help others.
- We learn to love others.
- We learn to be prayerful.
- We learn to love sinners.

### **Activity**

1. Give any two evidences which showed the Jesus was a human being.

(i).....

(ii).....

2. In which two ways was Jesus a perfect example?

(i).....

(ii).....

3. How can we imitate Jesus' perfectness to other people?

(i).....

(ii).....

4. What is incarnation?

.....

5. What was Jesus' greatest action of love ?

.....

6. Why should you forgive those who wrong you?

.....

7. What lesson do you learn from the crucifixion of Jesus on the cross?

.....

### **Lesson 7**

#### **Jesus' care for others**

#### **Ways in which Jesus cared / showed concern to others**

- He fed 5000 people.
- He healed the sick.
- He forgave sinners.
- He rose the dead.
- He cast demons from people.

## **Jesus' promise of the Holy Spirit**

- Jesus promised to send the Helper to His apostles on **Ascension day**.
- This helper was the **Holy Spirit**.
- The Holy Spirit came to the apostles on **Pentecost day (John 14:16)**

## **Reasons why Jesus promised the Holy Spirit to the apostles**

- To encourage them.
- To comfort them.

## **How the Holy Spirit guides and helps us.**

- He protects us from temptations.
- He empowered the apostles to continue with the work of spreading the gospel.
- He protects us from the devil.
- He helps us to make right choices.
- He helped Jesus to overcome temptations in the wilderness.

## **Activity**

1. Why did Jesus promise His apostles the Holy Spirit?

.....

2. What event took place on Pentecost day?

.....

3. How does the Holy Spirit help us to know the truth about God?

.....

4. Why do some people fear to proclaim God's word?

.....

5. In which way did the Holy Spirit help Jesus?

.....

## **Lesson 8**

### **Accepting the help of the Holy Spirit in our daily lives.**

#### **Some ways of co-operating with the Holy Spirit**

- By praying to God daily.
- By reading the Bible.
- By listening to advice from other people.
- By learning lessons from the daily happenings.

## Ways in which God can speak to us through certain happenings.

- Through meditation.
- Through listening to the inner voice.

### Activity

1. Why do we need to co-operate with the Holy Spirit?

.....

2. Mention any two ways of co-operating with the Holy Spirit.

(i).....

(ii).....

3. State any one value of reading the Bible.

.....

4. Mention any two groups of people we need to listen to as a way of co-operate with the Holy Spirit.

(i).....(ii).....

### Lesson 1

#### Topic 2: Ancestors, ourselves and the spirit Christian and African traditional beliefs.

- Before the introduction of Christianity African knew God as a creator, protector and provider.
- They had local names for God and believed in **African Traditional**

#### Religion (ATR)

| Tribe         | Name of God | Meaning        |
|---------------|-------------|----------------|
| Baganda       | Katonda     | Creator        |
| Banyoro       | Rugaba      | Giver          |
| Lteso         | Lokasuban   | Creator        |
| Kakwa         | Nyuleso     | God in the sky |
| Luhya (Kenya) | Nyasaye     | Beseeched one  |

#### Similarities between ATR and Christian beliefs.

- Both believe that God is the creator and sustainer of life.
- Both believe in life after death.
- Both believe in forgiveness and reconciliation with one another and God.
- Both have sacrifices and rituals.
- Life is believed to be a gift from God in both religions.

### **Differences between A.T.R and Christian beliefs.**

- A.T.R believes in witch craft unlike Christians.
- A.T.R believes in polygamy unlike Christians.
- Christians believe in the resurrection of the body on the day of judgement while A.T.R doesn't.
- A.T.R believes that the living dead can cause misfortunes to the living while Christians do not.

### **Evil practices and beliefs of A.T.R**

- Polygamy
- Witch craft
- Appeasing the dead
- Sacrificing human beings
- Charms and amulets.

### **Activity**

1.Which proof is there to show that our ancestors knew God before the coming of missionaries?

.....

2.How is a Christian's knowledge about God different from that of our ancestors?

.....

3.Mention any two similarities between Christianity and African Traditional Religion.

(i).....(ii).....

4.Give any two differences between Christianity and African Traditional Religions (ATR)

i).....

ii).....

5.According to the African Traditional Religion, which misfortunes can the living dead cause to the living?

.....

6.Give any two evil practices done in African Traditional Religion.

(i).....

(ii).....



## Lesson 2

### Reconciliation

- **Reconciliation** is the restoration of the lost relationship.
- **Reconciliation** is the bringing back of the broken friendship.

### Causes of misunderstandings

- Adultery
- Back biting
- Greed
- False accusation
- Suspicion of witchcraft.

### Importance of reconciliation

- It restores friendship and love
- It restores personal communications.
- Prevents bitterness and revenge.
- It promotes peace.
- It promotes unity.

**Note.** In the Bible, King **David killed Uriah** because of his **greed and lust**. King David took Uriah's wife.

King David later realised his mistake and asked for forgiveness (2 Samuel 12:1-17)

### Activity

1.What term is given to the restoration of the broken relationship?

.....

2.Mention any two common causes of misunderstandings among children.

(i).....(ii).....

3.How does reconciliation prevents revenge?

.....

4.Give any two causes of misunderstandings among old people.

(i).....(ii).....

5.Mention any two values of reconciliation.

i).....

ii).....

## Lesson 3

### Ways of reconciliation

#### Africans / Traditional ways of reconciliation.

- Arbitration
- Paying fines
- Apologizing
- Sharing meals.

**Arbitration** is when someone is asked to settle the dispute between two or more people.

**How our ancestors reconciled with their gods / evil spirits**

- Through offering sacrifices.

**Examples of sacrifices our ancestors offered to small gods.**

- Cows , goats , chickens

**Places where our ancestors offered their sacrifices.**

- |             |          |
|-------------|----------|
| ➤ Shrines   | ➤ trees  |
| ➤ Homes     | ➤ lakes  |
| ➤ Mountains | ➤ rivers |
| ➤ Caves     |          |

**Note.**In the Old Testament, the Israelites have similar ways of reconciling with God.

- They offered sacrifices of animals as a sign of reconciliation with God.

**Christian ways of reconciling with God.**

- Believing in Jesus Christ.
- Accepting Jesus as a personal saviour.
- Repenting for our sins.

**Christian ways of reconciling with one another.**

- |                    |                       |
|--------------------|-----------------------|
| ➤ Arbitration      | ➤ Ask for forgiveness |
| ➤ Paying fines     | ➤ Sharing meals       |
| ➤ By shaking hands |                       |

**Activity**

1. What is arbitration?

.....

2. Give any two ways in which our ancestors reconciled with one another.

(i).....

(ii).....

3. For what reason don't Christians make sacrifices today?

.....

4. What role did Jesus play in reconciling us with God?

.....

5. In which way can a Christian spoil his relationship with God?

.....

6. Name any two examples of sacrifices our ancestors offered to God.

(i).....(ii).....

7. Give any two examples of places where our ancestors made their sacrifices.

(i).....(ii).....

## Lesson 4

### Beliefs about death and Life after death

According to tradition some people believe that the dead continue to live in another form of life.

#### Ways Africans respect / remember the dead.

- Naming children after them.
- Caring for their graves.
- Swearing in their names.
- Cursing people through them.
- Offering them food and drinks as sacrifices.
- Asking them to bless the living.

#### Biblical teaching on death and life after death (1<sup>st</sup> Corinthians 15:19, John 11:25, Thessalonians 4:14-17, Matthew 25:31)

- Those who believe in Jesus Christ live after death.
- Christians will resurrect in their bodies on Judgement day.
- On Judgement day Jesus will come back to take those who died believing in him.

#### Difference beliefs about death between African Traditional Religion(ATR) and Christians.

| ATR beliefs                       | Christian beliefs                   |
|-----------------------------------|-------------------------------------|
| Remember their dead as ancestors. | Remember their dead as saints       |
| Offer sacrifices to the dead.     | Don't offer sacrifices to the dead. |
| Don't believe in resurrection     | Believe in resurrection.            |
| Don't believe in judgement day.   | Believe I judgement day.            |

#### Activity

1. Who are the living dead?

.....

2. Give any two ways in which people remember their dead.

(i).....

(ii).....

3. What is the original suffering of human beings according to Christians?

.....

4. How did Jesus overcome death?

.....

5. What makes Christians believe that there is life after death?

.....

6. "A person who believes in Jesus will never die". What does that statement mean?

.....

7. What will happen to the following people on judgement day?

(i) The righteous.....

(ii) Non believers.....

## Lesson 5

### Hope with saints after death

- **Hope** is living with expectation of a better future.
- **Death** is the separation of the soul from the body.
- It is only the body that dies but the soul does not die.
- The soul goes back to the creator to wait for judgement day.

### What Christians should hope for.

- Eternal life through Jesus Christ.

### Communion of saints

- This is the joining together of minds and souls.
- A **saint** is a canonised martyr.
- A **martyr** is a person who accepts to die for his faith.
- To canonise is the act of declaring a martyr a saint.
- The Uganda martyrs were canonised by **Pope Paul vi** in **1896**.

### Examples of local saints

- Uganda martyrs
- 
- Archbishop Janan Luwum

### Ways in which Christians are in communion with saints

- They name buildings after saints.
- They baptise their children after saints.
- In the Apostles creed, we emphasize our communion with the saints. **"I believe in the communion of saints"**

## **Importance of the communion with saints to a living Christian (Romans 12:2)**

- Christians are inspired to work for eternal life so as to join the saints.
- Some Christians get determination to do certain things after asking for assistance in their daily needs from saints.
- Christians have a chance to remember fellow Christians who died in Christ.
- Saints act as role models to the Christians in their daily lives.

### **Activity**

1.What do you understand by the phrase “Death is not a full stop but a comma to the story of life?”

.....

2.Who is a saint?

.....

3.Why did Pope Paul vi visit Uganda I 1896?

.....

4.Name the former Archbishop of Uganda who was declared as a saint.

.....

5.Name any child in your class who was named after a saint.

.....

6.In which two ways do Christians show their communion with saints?

(i).....

(ii).....

7.Through which confession do Christians profess their communion with the saints?

.....

### **Lesson 1**

#### **Topic 3: Enriched by other Nations and Religions.**

##### **World religions.**

- **Religion** is a belief in spiritual beings.
- **Religion** is a collection of cultural systems, beliefs and values that relate to human spirituality and moral values.

##### **Examples of world religions.**

- Christianity
- Islam
- Judaism
- Hinduism
- Buddhism

## **Main Christian sects / Christian denominations in Uganda.**

- Anglican church
- Catholic church
- Orthodox church
- Seventh Day Adventists
- Pentecostals

## **Activity**

1.What term is given to the act of believing and following Jesus?

.....

2.What is a religion?

.....

3.Give any four examples of religions in the world.

(i).....(ii).....

(iii).....(iv).....

4.What are Christian denominations?

.....

5.State any two examples of religious sects.

(i).....

(ii).....

## **Lesson 2**

### **Historical background of religions**

#### **Historical Islam back ground of Christianity**

- **Christianity** is the religion which follows the teachings of Jesus Christ.
- The follower of Jesus Christ is called a **Christian / disciple**
- **Christianity** was founded by **Jesus Christ**.

### **Signs and symbols of religions**

- A **religious sign** is an action which when used conveys a particular message.

#### **Examples of religious signs**

- Circumcision
- Ablution
- Baptism
- Waving hands
- A thumb sign
- Hand shaking
- Kneeling down
- Smiling

### **Religious symbols**

- A **symbol** is a physical object that represents something else.

#### **Examples of religious symbols**

- **Palm leaves** symbolise peace
- **Flowers** symbolise love and good luck.

## **Symbols in Christianity**

- Holy Cross
- Holy Bible

## **Symbols among other religions**

- Qur'an for Moslems
- Sacred cow for Hindus

## **Values / importance of religious symbols**

- They promote love for one's religion.
- They help to identify different religions.

## **Activity**

1.What do palm leaves represent on palm Sunday?

.....

2.Who founded Christianity?

.....

3.Who is a Christian?

.....

4.Give any two example of religious symbols among Christians.

(i).....(ii).....

5.Give any one value of religious symbols.

.....

## **Lesson 3**

### **How we can respect and relate to people of other religions.**

- Being polite and respectful.
- Do not disregard founders of their religions.
- Be willing to listen.
- Use common similarities.

### **Common religious beliefs**

- The belief in the existence of God or gods (Theism).
- Belief that there is no God (Atheism)
- Belief in existence of the creator (Deism)
- Belief in the existence of only one God ( Monotheism)
- Belief in the existence of many gods ( Polytheism)
- Belief that all natural objects e.g plants, animals have life (Animism).

### Activity

1. Give any two ways you can show respect to the people of other religions.

i).....

ii).....

2. State any two common religious beliefs.

i).....

ii).....

### Lesson 4

#### World organization / international organisations

| Organisation                                          | Duty / importance                                                             |
|-------------------------------------------------------|-------------------------------------------------------------------------------|
| United Nations Organisation (UNO)                     | It promotes world peace.                                                      |
| Commonwealth of Nations (CWN)                         | It promotes social and economic living conditions among member countries.     |
| East African Community (EAC)                          | It creates a wider market for member countries.                               |
| African Union (AU)                                    | It unites African countries.                                                  |
| United Nations High Commissioner for Refugees (UNHCR) | It provides relief to people affected by wars and other disasters.            |
| International Committee of the Red Cross (ICRC)       | It provides relief to war victims and people hit by other natural calamities. |
| World Health Organisation (WHO)                       | Fights against diseases like COVID 19 world wide.                             |

#### How we benefit from people of other countries

- Culture-We share the Western culture through missionary work.
- Trade-Different countries provide market for goods.
- Relief-Countries give relief to others that are hit by war or famine.
- Development-Countries give developmental loans and grants to each other.

### Activity

1. How have organisations made the world a village?

.....

2. Why was UNO formed?

.....

3. In which way do you benefit personally from the works of UNO?

.....



4. Which organisation helps to settle disputes in Africa?

.....

5. Write EAC in full.

.....

6. What is interdependence?

.....

7. What contribution does the Commonwealth of Nations make to God's worldwide family?

.....

### **R.E TOPICAL TEST**

What is creation?

.....

2. What term is given to all living things created by God?

.....

3. According to the order of creation, which creature was made the summit of creation?

.....

4. What was the value of God's breath into Adam's nostrils?

.....

5. What do we mean by the phrase 'We were created in God's image' yet we don't look alike?

.....

6. How do human beings take part in God's work of creation?

.....

7. What does the name Eve mean?

.....

8. Why were Adam and Eve embarrassed when they realised that they were naked?

.....

9. What broke God's relationship with mankind?

.....

10. Give any two consequences of sin.

(i).....

(ii).....

11.How did God prepare His plan for the restoration of the lost relationship with human beings?

.....

12.What does the name Israel mean?

.....

13.State the last prophet to prophesy about the birth of Jesus Christ.

.....

14.What event took place on Mt. Nebo?

.....

15.Whom did God choose as the grandfather of all nations?

.....

16.What was the last step in God's salvation of human beings?

.....

17.How can we imitate Jesus' perfectness to other people?

(i).....

(ii).....

18.What is incarnation?

.....

19.Why did Jesus promise His apostles the Holy Spirit?

.....

20.What event took place on Pentecost day?

.....

21.In which way did the Holy Spirit help Jesus?

.....

22.How is a Christian's knowledge about God different from that of our ancestors?

.....

23.What term is given to the restoration of the broken relationship?

.....

24.Mention any two values of reconciliation.

(i).....

(ii).....

25.What is arbitration?

.....

What role did Jesus play in reconciling us with God?

.....

26. "A person who believes in Jesus will never die". What does that statement mean?

.....

27. What will happen to the following people on judgement day?

(i) The righteous.....

(ii) Non believers.....

28. Who is a saint?

.....

29. Why did Pope Paul VI visit Uganda in 1969?

.....

30. What is a religion?

.....

31. Give any four examples of religions in the world.

(i).....(ii).....

(iii).....(iv).....

32. What are Christian denominations?

.....

33. Who is a Christian?

.....

34. State any two common religious beliefs.

(i).....

(ii).....

35. What contribution does the Commonwealth of Nations make to God's worldwide family?

.....

**REMEMBER TO KEEP YOUR BOOKLET CLEAN AND SAFE  
THROUGHOUT YOUR PRIMARY SEVEN COURSE.**

**"SUCCESS IN THE CANDIDATE CLASS"**