



## LOCATION OF UGANDA

### Lesson

In Africa, Uganda is located in the East African region.

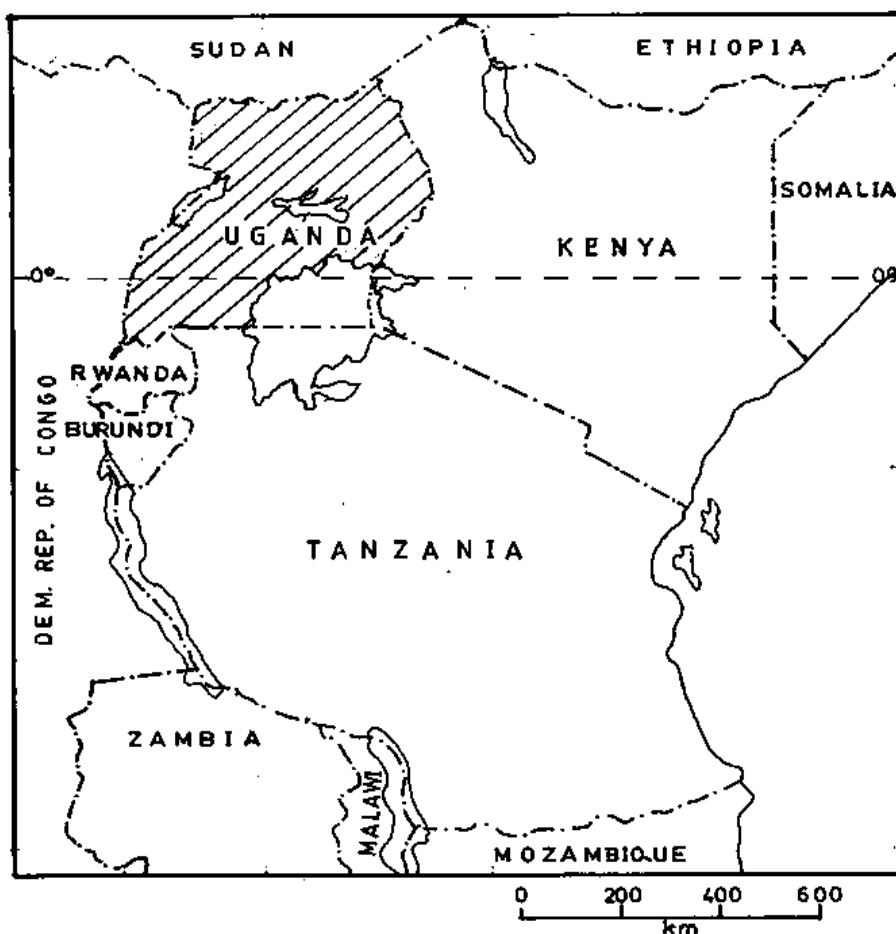
Uganda is one of the three countries found in East Africa and the others are;

- ✓ Kenya
- ✓ Tanzania

Rwanda and Burundi, South Sudan and Democratic Republic of Congo are not part of East African region. They are all found in Central Africa.

However, they are members of East African community which is a **regional market**.

- ✓ Uganda is the smallest East African country, with an area of 241,038 Sq. kilometers.
- ✓ Uganda was called "**the pearl of Africa**" by Sir Winston Churchill, because of Uganda's beautiful sceneries.
- ✓ Uganda is a landlocked country, because it doesn't have its own Seaport or a coastline.



### Location of Uganda on the map of East Africa

#### Districts that form Uganda

- ✓ A district is an administrative area at the level of Local Council Five
- ✓ Uganda is divided into **many** districts mainly **for easy** administration.
- ✓ Chairperson LC V is the political head of a district.
- ✓ Districts in Uganda are grouped into regions, and each region is divided into sub regions according to the customs of the people in that area.

✓

**ACTIVITY**

1. In which region of Africa is Uganda located?  
\_\_\_\_\_
2. Apart from Uganda, mention any other two countries found in the same region of Africa.  
\_\_\_\_\_
3. Write any **two** neighbour's of Uganda.  
\_\_\_\_\_
4. Who named Uganda the pearl of Africa?  
\_\_\_\_\_
5. Why was Uganda named the pearl of Africa?  
\_\_\_\_\_
6. Uganda is a landlocked country. What do you understand by this statement?  
\_\_\_\_\_
7. Which lake shares a boundary with Kenya and Tanzania?  
\_\_\_\_\_
8. Name the smallest country in East Africa.  
\_\_\_\_\_
9. Name the common market which unite all the three East African countries.  
\_\_\_\_\_

**SPELLING EXERCISE**

- 1 ..... 2 .....
- 3 ..... 4 .....
- 5 ..... 6 .....
- 7 ..... 8 .....

**LESSON****Regions that form Uganda**

1. Central region.
2. Northern region
3. Western region
4. Eastern region

These regions are further divided into the districts found within them.

**Sub-regions found in each region of Uganda.**

Region	Sub-region	Districts found
Central region	South Buganda	Lwengo, Lyantonde, Kyotera, Kalungu, Bukomansimbi, Masaka, Kalangala, Rakai , Sembabule
	North Buganda	Nakasongola, Luwero,
	East Buganda	Kayunga, Mukono, Buikwe, Buvuma
	West Buganda	Kyankwanzi, Kiboga, Mityana, Mubende, Kassanda,
	Central Buganda	Mpigi , Wakiso, Butambala, Gomba, Kampala, Kalangala, Buvuma, Mukono,

Northern region	Acholi sub-region	Gulu, Kitgum, Kitgum, Lamwo, Amuru, Agago, Pader , Omoro, Nwoya
	Karamoja sub region	Kotido, Abim, Moroto, Kaabong, Nakapiripirit, Karenga, Napak, Nabilatuk, Amudat
	Lango sub-region	Lira, Apac, Oyam, Dokolo, Kole, Amolatar, Kwanja, Alebtong, Otuke
	West Nile sub region	Arua, Nebbi, Zombo, Moyo, Terego , Maracha, Obongi, Yumbe, Adjumani Koboko
Western region	Bunyoro sub-region	Hoima, Buliisa, Kagadi, Kakumiro, Kikuube, Kibaale, Masindi , Kiryandongo
	Toro sub-region	Kabarole, Kamwenge, Kyegegwa, Bunyangabu, Kyenjojo, kitagwenda
	Rwenzori sub-region	Kasese, Bundibugyo, Ntoroko
	Kigezi sub-region	Kabale, Kisoro, Kanungu, Rukungiri Rubanda, Rukiga
	Ankole sub-region	Mbarara, Ibanda, Kiruhura, Isingiro, Kazo, Ntungamo, Mitooma, Sheema, Bushenyi, Rubirizi, Buhweju,
Eastern region	Busoga sub-region	Jinja, Iganga, Mayuge, Kaliro, Mutumba, BUsiri, Bugweri, Namayingo, Kamuli, Luuka, Buyende
	Teso sub-region	Kapelebyong, Kalaki, Katakwi, Ngora, Bukedea, Soroti, Serere, Kumi, Amuria
	Bugisu sub-region	Mbale, Sironko, Bududa, Bulambuli, Manafwa, Namishindwa
	Sebei sub-region	Kapchorwa, Bukwo, Kween
	Bukedi sub-region	Pallisa, Kibuku, Budaka, Butebo, Butaleja, Tororo, Busia

### MAP OF UGANDA SHOWING REGIONS

#### Reasons why Uganda is divided into districts

1. To ease administration.
2. To extend social services nearer to people.
3. To create more job opportunities to people.

#### Disadvantages of creating more new districts

1. It leads to separation of communities/ tribes.
2. It leads to high administrative costs.

**Uganda**

**South Sudan**

**Kenya**

**D.R. of the Congo**

**Tanzania**

**North**

**Scale 1:4,900,000 1 Cm = 48 Kms.**

**LEGEND**

- KAMPALA (with star) Country Capital
- Albert Nyanza / Lake Albert
- Entebbe (with airplane symbol) International Airport
- International Boundary
- - - District Boundary
- River / Lake
- Forest Name

**Reference**

- Northern Region
- Eastern Region
- Western Region
- Central Region
- Lake Region
- National Park

## Activity

- 9

## LESSON

### HIGHLAND DISTRICTS

These are districts which are located in areas of high altitude.

Altitude is the height above the sea level.

Such districts usually have many hills and mountains.

#### Examples of highland districts

- |              |               |              |
|--------------|---------------|--------------|
| 1. Mbale     | 4. Moroto     | 7. Kisoro    |
| 2. Kapchorwa | 5. Kasese     | 8. Rukungiri |
| 3. Kabale    | 6. Bundibugyo |              |

#### Economic activities commonly carried out in highland districts.

- ✓ Tourism                      ✓ Mining                      ✓ Crop growing

#### Problems faced by people living in highland districts.

1. Landslides
2. Poor transport network
3. Severe soil erosion
4. Difficulty in agricultural mechanization.

#### Possible solutions to the problems facing people living in highland districts

- a) By rearing donkeys to use them as means of transport.
- b) By constructing winding roads.
- c) By practicing afforestation and reforestations to control landslides.
- d) By terracing, contour ploughing and strip cropping to reduce soil erosion.

Note:

- ✓ Heavy rainfall is the major cause of landslides in highland areas.
- ✓ Landslides can be controlled in highland areas by planting more trees.
- ✓ Ground transport is very poor in highland areas because it is very difficult and expensive to construct roads in highland areas.
- ✓ Agricultural mechanization is so poor in highland areas because the steep slopes make the use of tractors difficult.
- ✓ Road transport can be improved in highland areas by constructing winding roads.
- ✓ People living in Kapchorwa district rear donkeys mainly to use them as means of transport.

### Activity

1. How are island districts different from highland districts?

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2. What do you understand by the term altitude?

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3. Mention **two** examples of highland districts.

- i) \_\_\_\_\_
- ii) \_\_\_\_\_

4. State **two** economic activities commonly carried out in highland districts.

- i) \_\_\_\_\_
- ii) \_\_\_\_\_

5. Give any **two** problems faced by people living in highland districts.

- i) \_\_\_\_\_
- ii) \_\_\_\_\_

6. Mention **two** possible solutions to the problems facing people living in highland districts.

- i) \_\_\_\_\_
- ii) \_\_\_\_\_

7. Name the major cause of landslides in highland areas.

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8. How can landslides be controlled in highland areas?

Why do people living in Kapchorwa district rear donkeys?

## LESSON

## AND DISTRICTS

island is an area of land which is completely surrounded by a water body.

The island districts in Uganda are all found in Lake Victoria.

### Examples of Islands districts

- angala district ✓ Buvuma district

nds which make up Buvuma district

Muganyizi, Lwaji and Buvuma

**Economic activities commonly carried out in Island districts.**

- Fishing.
- Crop cultivation (oil palm growing, maize, banana, potatoes)
- Lumbering
- Trading.
- Tourism due to presence of Ssesse forest, Ngamba island which is famous for Chimpanzees

**Benefits enjoyed by Island districts.**

- They get easy access to water.
- They have fertile soils.
- They have favorable climate
- They receive plenty of rainfall.

## Problems facing people living in Island districts

- Poor transport network.
- Attacks from aquatic animals e.g. crocodiles.
- Attack from pirates
- Lack of hydro electricity
- Floods
- Poor social service delivery.

e: -There is no hydro electricity in Kalangala and because it is very expensive to fix electric poles  
water of Lake Victoria to these districts.

### **utions to the problems facing Island districts of Uganda**

- By using other sources of energy e.g. solar energy
- By employing more social service providers.
- By providing better means of water transport.
- By building better social service centres in island districts.
- By paying attractive salaries to people who provide social services in island districts.

Activity
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- What are island districts?

- Name any **two** examples of islands districts.

- Mention **two** economic activities commonly carried out in island districts.

- Name the island which is famous for chimpanzees.

5. State **two** benefits enjoyed by Kalangala districts over Kotido District.

- i) \_\_\_\_\_
- ii) \_\_\_\_\_

6. Give any **two** problems facing people living in island districts.

- i) \_\_\_\_\_
- ii) \_\_\_\_\_

7. State the main reason why there is no hydro electricity in Kalangala district.

\_\_\_\_\_

## LESSON

### A MAP AND A PICTURE

#### What is a map?

A map is a representation of an object drawn as seen from above.

A map is a drawing of an object as seen from above.

#### What is a picture?

- A picture is a representative of an object drawn as seen from aside.
- A picture is a drawing of an object as seen from a side.

#### How is a picture different from a map?

1. A picture is a representation of an object drawn as seen from aside while a map is the representation of an object drawn as seen from above.
2. A picture is a drawing of an object as seen from aside while a map is the drawing of an object as seen from above.
3. A picture is more real and accurate than a map
4. A picture is more detailed than a map

#### How is a Map similar to a Picture?

Both are representations of objects.

#### Types of maps

##### a) Political maps.

These maps show boundaries of villages, counties, districts and countries.

##### b) Topographic maps.

These maps show physical features/ landforms of a given area e.g. mountains etc.

##### c) Flow-line maps.

These are maps that show movement of people, goods and animals.

##### d) Thematic maps.

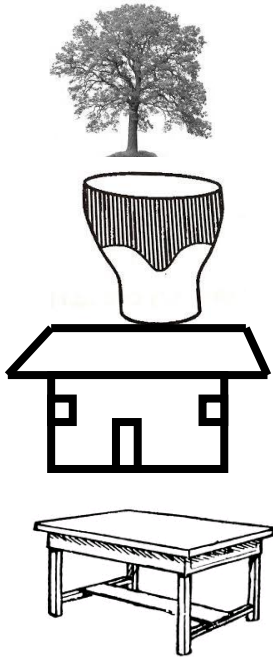
These are maps that show various social and economic themes e.g. trade, energy.

#### Importance of maps

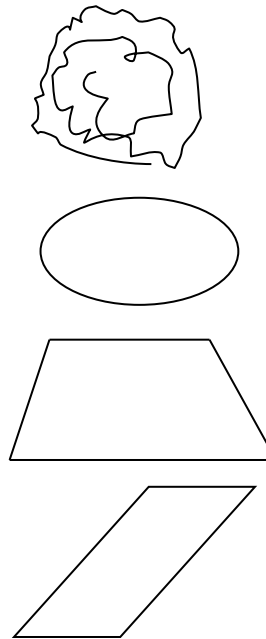
- a) It helps to locate places or features.
- b) It helps us to identify places or features.
- c) Maps help us to know the climate of the area
- d) Maps help us to represent information.
- e) Maps help us to store information

## Draw the pictures and maps of the following objects

### Picture



### Maps



### Activity

1. What term is used to mean a representation of an object drawn as seen from above?

\_\_\_\_\_

2. How is a picture different from a map?

\_\_\_\_\_

3. How is a map similar to a picture?

\_\_\_\_\_

4. State **two** types of maps.

i) \_\_\_\_\_

ii) \_\_\_\_\_

5. Mention **two** features that can be represented on the topographic maps.

i) \_\_\_\_\_

ii) \_\_\_\_\_

6. Mention any **two** importance of maps.

i) \_\_\_\_\_

ii) \_\_\_\_\_

### SPELLING EXERCISE

**1** ..... **2** .....

**3** ..... **4** .....

**5** ..... **6** .....

**7** ..... **8** .....



## Lesson

### Elements of a map

Elements of a map are the things which make up a complete map.

They are:

1. A compass direction
2. A scale
3. A title/heading
4. A frame
5. A key

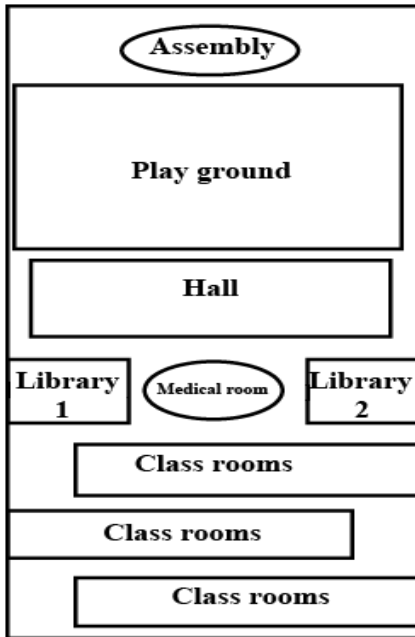
### Importance of different elements of a good map

Element	Importance
❖ A compass direction	✓ It helps to show the direction of places on a map. -A map reader may fail to know the direction of places shown on the map if he/she reads a map without a compass direction.
❖ A title/ heading	✓ It helps one to know what the map is all about. -One who reads a map without a title may fail to know what the map is all about.
❖ A key	✓ It helps a map reader to interpret symbols used on a map. ✓ A key gives detailed information about the map. ✓ A map reader may fail to interpret/ know the meaning of symbols used on a map if he/she reads a map without a key.
❖ A scale	✓ It helps a map reader to calculate the actual ground distance on a map. ✓ A map reader may fail to calculate the actual ground distance between places on the map if he/she reads a map without a scale.
❖ A frame	✓ It shows the extent of the area represented by the map.

## Activity

1. State the elements of a good map which;
  - a) helps to show the direction of places on a map  
\_\_\_\_\_  
\_\_\_\_\_
  - b) helps one to know what the map is all about  
\_\_\_\_\_  
\_\_\_\_\_
  - c) helps a map reader to interpret symbols used on a map.  
\_\_\_\_\_  
\_\_\_\_\_
  - d) helps a map reader to calculate the actual ground distance on a map  
\_\_\_\_\_  
\_\_\_\_\_
2. Jackie was reading a map without these components. What problem is she likely to get when she reads a map without:
  - a) Compass direction?  
\_\_\_\_\_  
\_\_\_\_\_
  - b) Title?  
\_\_\_\_\_  
\_\_\_\_\_
  - c) Key?  
\_\_\_\_\_  
\_\_\_\_\_
  - d) Scale?  
\_\_\_\_\_  
\_\_\_\_\_

Map interpretation



Activity

1. How many classroom blocks are shown on the map?

\_\_\_\_\_

2. Which building is between library 1 and library 2?

\_\_\_\_\_

3. Name the building found in the North western direction of the Hall?

\_\_\_\_\_

4. Name the building found in the South eastern direction of the Hall?

\_\_\_\_\_

5. What is the direction of classes from the playground?

\_\_\_\_\_

6. Find the correct direction of the assembly ground from:

7. Playground: \_\_\_\_\_

8. Library 2: \_\_\_\_\_

9. **SPELLING EXERCISE**

10. **1** ..... **2** .....

11. **3** ..... **4** .....

12. **5** ..... **6** .....

13. **7** ..... **8** .....

## LESSON

### Map symbols


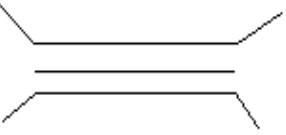



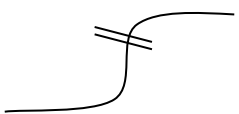

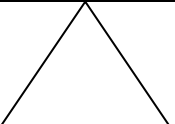
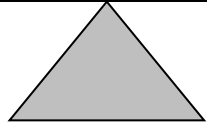

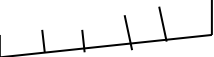
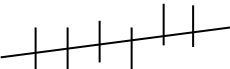
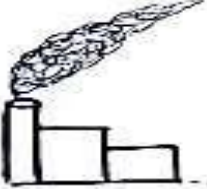

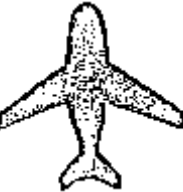
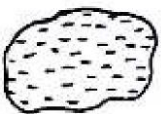


Map symbols are features which represent real objects on a map.

**The** symbols can be dots, colors, letters shades or lines

### Importance of Symbols on a map

1. They help to reduce overcrowding on a map.
2. They help to represent real objects on a map.
3. For easy representation in map work.
4. To make map reading easy.

### Examples of map symbols

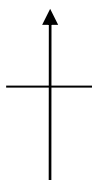
		
Rift Valley	Bridge	Swamp
		
Hill	Dam	Water Falls
		
River	Mountain	Mountain Peak
		
Quarry	Canal	Railway Line
		
Factory	Contours	Airport
		
permanent lake	hospital	A port

### A Compass

It is an instrument used to show direction of places.

A drawn compass is called a compass rose.

### A symbol of a compass



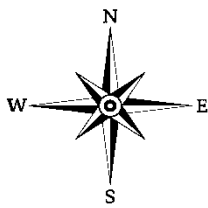
## Compass directions

It is a symbol (an element) of a map that is used to tell the direction of places on a map.

The compass points are divided into the cardinal points, semi-cardinal points (secondary points) and tertiary points.

### Cardinal points

These are the four major points of a compass. They are also called **primary** points on the compass



These include;

1. North
2. South
3. West
4. East

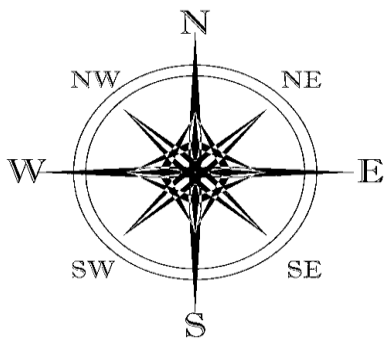
**Secondary points** are the directions that lie midway of cardinal points.

Semi-cardinal points lie at  $45^\circ$  from the cardinal points.

These include;

1. South East
2. South West
3. North East
4. North West

### Secondary points on a compass



### Groups of people who use a Compass

- |             |                           |                      |
|-------------|---------------------------|----------------------|
| 1. Sailors  | 4. Soldiers               | 7. Rally drivers     |
| 2. Tourists | 5. Scouts and Girl guides | 8. Mountain climbers |
| 3. Pilots   | 6. Astronauts             | 9. Surveyors         |

### Ways of finding direction

1. Using a compass
2. Using the direction of sun
3. Using the neighbors.
4. Using landmarks

5.

### Activity

1 What special name is given to the features which represent real objects on a map?

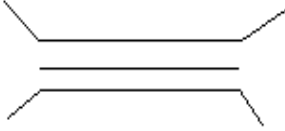
\_\_\_\_\_

2 Mention **two** importance of symbols on a map.

i) \_\_\_\_\_

ii) \_\_\_\_\_

3 Name the map symbol represented below.



\_\_\_\_\_

4 How is a compass different from compass directions?

\_\_\_\_\_

5 Name the point on the compass:

a) From which the sun rises? \_\_\_\_\_

b) To which the sun sets. \_\_\_\_\_

6 Name any **two** of the four major points of a compass.

i) \_\_\_\_\_

ii) \_\_\_\_\_

7 **Secondary points** are the directions that lie midway of cardinal points. Mention the cardinal points which lies between;

a) North and East

\_\_\_\_\_

b) West and South

\_\_\_\_\_

8 Mention any **two** people who use a compass in their daily work.

i) \_\_\_\_\_

ii) \_\_\_\_\_

9 Write any **two** ways of finding direction.

i) \_\_\_\_\_

ii) \_\_\_\_\_

**Below is a compass rose. Use it to answer the questions that follow**



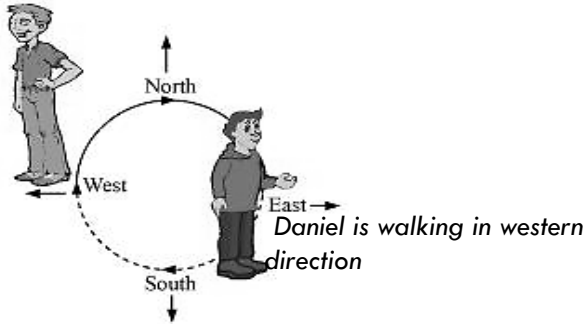
## LESSON

### Finding directions using degrees

- We use clockwise and anti-clockwise to find direction.
- Clockwise moving the right.
- Anti-clockwise moving to left.

### Examples

Daniel was facing east direction, he turned  $90^\circ$  anti-clockwise and started moving. In which direction is he moving?



Nakigudde was facing North East direction. She turned at an angle of  $45^\circ$  clockwise. What is her new direction?



**It is East direction**

### Activity

Sekibuto was facing Southeastern direction. He turned at an angle of  $90^\circ$ . What was the new direction?



Kapere was facing South West direction; he turned at angle of  $135^\circ$  clockwise. What is his new direction?

Kawumpuli was going to Owino facing North West direction. He turned at an angle  $225^\circ$  clockwise. What is his new direction?

Ssali was moving towards Namboole facing South East. He turned at an angle of  $45^\circ$  anti-clockwise. What is his direction?

Wava was going to Didis while facing East direction. She turned at an angle of  $135^\circ$  anti-clockwise. What is her direction?

## Lesson

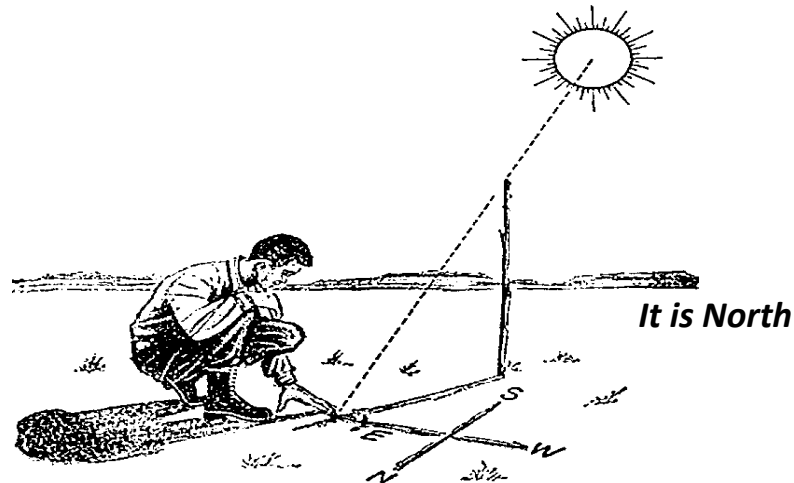
### Using a Shadow/Sun to find direction

The sun is also used to find the direction of places.

### Ways how the sun can help people to locate places.

- By following the movement of the sun.
- By identifying where the sun rises and sets.
- By identifying the position of the sun at different times of the day.

Study the picture below carefully



### Examples

- 1 Pingu was going to school in the morning, he saw his shadow on his left. To which direction was he facing?

### Activity

- |   |  |
|---|--|
| 1 Karen was going home in the evening; she saw her shadow on her right. To which direction was she moving?    | 2 Musa was going to the factory in the evening. He saw his shadow on his left. To which direction was he moving? |
| 3 Mary was going to garden in the morning. She saw her shadow on her left. To which direction was she facing? | 4 Henry was going to the church in the morning. He saw his shadow on his left. To which direction was he facing? |

## LESSON

### SCALE

It is an element of a map used to measure the actual distance of places on a map in relation to the actual ground distance.

A scale is the ratio of the distance on a map to the actual distance on the ground.

### What is a sketch map?

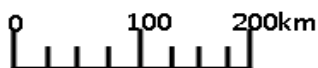
It is a map not drawn on a scale. Or it is a map drawn without a scale.

### Types of scales used on a map

- (i) linear scales.
- (ii) Statement scale
- (iii) Fractional scale /Representative scale

### (i)Linear scale.

This is the type of scale drawn using lines that are divided into equal parts.



Example;

Find the actual ground distance between town Q and town S if there is a distance of 6cm between the two towns on the map.

### Solution;

$$1\text{cm} = 100\text{km}$$

$$6\text{cm} = (6 \times 100)\text{km} = 600\text{km}.$$

Therefore, the actual ground distance between Town Q and Town S is 600km.

### (ii)Representative scale/ fractional scale

This is the type of scale written as a mathematical fraction. It can also be written as a ratio.eg. 1:100km or  $\frac{1}{100}\text{km}$

### (iii)Statement scale.

This is the type of scale given as a statement or words.

Eg.1cm on a map represents 100km on the ground.

### Using a scale to find distance

Examples

1. Mark travelled from Kampala to Kile which has a distance of 5 cm. Given that 1 cm represents 60 km (1:60 km). Find the actual distance Mark travelled.

$$\begin{aligned} \text{Kampala} & \xrightarrow{5 \text{ cm}} \text{Kile} \\ 1 \text{ cm} &= 60 \text{ km} \\ 5 \text{ cm} &= (5 \times 60) \text{ km} \\ &= 300 \text{ km} \end{aligned}$$

2. Morgan moved a distance of 7 cm from class A to class B. Given that 1 cm = 150 km. Find the actual distance.

$$\begin{aligned} \text{class A} & \xrightarrow{7 \text{ cm}} \text{class B} \\ 1 \text{ cm} &= 150 \text{ km} \\ 7 \text{ cm} &= (7 \times 150) \text{ km} \\ &= 1050 \text{ km} \end{aligned}$$

### EXERCISE

1. Juliet moved a distance of 10cm from town A to B. Given that 1 cm represents 10Km. Find the actual ground distance in Km.	2. Musumali moves a distance of 5cm from home to school on the map. Given that 1cm = 2km, find the actual ground distance in Km.
3. Joseph rose to school at a distance of represented by 3 cm on a map. If 1 cm= 1km, find the actual ground distance covered by Joseph in Km.	



--	--

## LESSON

### **Why is it difficult for Prudence to read a map without a scale?**

She will not be able to calculate the distance between places on the map in relation to the actual ground distance.

### **Why is it difficult for Sarah to read a map without a compass?**

She will not be able to tell direction of places.

### **KEY**

It interprets the map symbols, signs and colours used on the map.

### **Why is it difficult to read a map without a key?**

It is difficult to interpret map symbols.

### **TITLE/HEADING**

It shows what a map is all about.

### **Why is it difficult to read a map without a title?**

It is difficult to tell what a map is all about.

## Activity

1. Which element of a map is used to measure the actual distance of places on a map in relation to the actual ground distance?

---



---

2. What is a sketch map?

---



---

3. Mention **two** types of map scale.

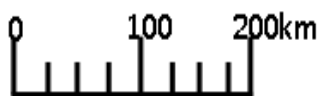
i) \_\_\_\_\_

ii) \_\_\_\_\_

4. Give another name for a representative scale.

---

5. Name the type of scale shown below.



6. Juliet moved a distance of 10cm from town A to B. Given that 1 cm represents 20 cm. Find the actual ground distance in Km.

---



---

7. Musumali moves a distance of 5cm from home to school on the map. Given that 1cm = 2km, find the actual ground distance in Km.

---



---

8. Why is it difficult for Prudence to read a map without a scale?

---



---

9. Why is it hard for Sarah to read a map without a compass?

---



---

10. How important is a key on a map?

---

11. Jolly was reading a map without a title. Suggest **one** problem she is likely to experience.

---

### **SPELLING EXERCISE**

**1** ..... **2** .....

**3** ..... **4** .....

**5** ..... **6** .....

**7** ..... **8** .....

### **Lesson**

#### **LOCATION OF UGANDA USING THE GRID REFERENCE SYSTEM**

##### **Grid reference**

Grid reference is the method of locating places using the lines of longitude and latitude.

Grid refers to the network of horizontal and vertical lines used as reference coordinates to locate places on a map.

We can locate Uganda on a map using latitudes and longitudes.

Uganda is found between 29° East of Greenwich and between 1°S and 4°N of the Equator

##### **Latitudes and Longitudes**

Latitude is the distance North or South of Equator.

Lines of latitude: Imaginary lines drawn on a map from East to West.

Longitudes: Is the distance North or South of the Equator.

Lines of longitude are the imaginary lines on a map from North to South.

##### **Examples of latitudes**

1. Equator 0°.

2. Tropic of Cancer 23½° N.

3. Tropic of Capricorn 23½° S.

4. Arctic circles 66½° N.

5. Antarctic Circle 66½° S.

The main latitude is the Equator marked 0°

##### **Why the is Equator marked 0°**

(i) It is the midpoint of the world.

(ii) It is the point where the measurement of latitude begins.

##### **The equator divides the world into two hemispheres**

(i) Northern hemisphere

(ii) Southern hemisphere

##### **Countries crossed by the Equator in East Africa**

(i) Uganda

(ii) Kenya

##### **Other countries in Africa that are crossed by the Equator**

Somalia, DRC, Gabon, Congo Brazzaville

## ACTIVITY

1. Name the method of locating places using the lines of longitude and latitude.

\_\_\_\_\_

2. Why is the Equator marked  $0^\circ$ ?

\_\_\_\_\_

3. Mention any **two** East African countries crossed by the Equator.

i) \_\_\_\_\_

ii) \_\_\_\_\_

4. What name is given to the area between the Tropic of cancer and the Tropic of Capricorn?

\_\_\_\_\_

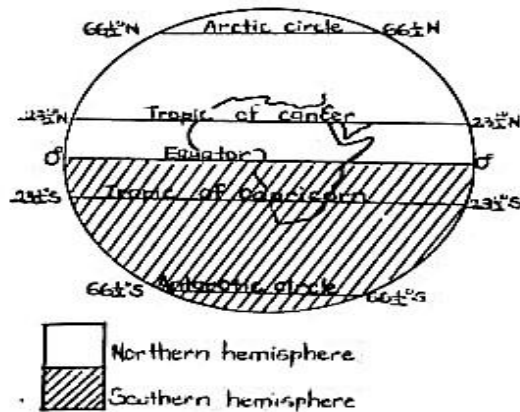
5. Mention any **two** districts in Uganda crossed by the Equator.

i) \_\_\_\_\_

ii) \_\_\_\_\_

## LESSON

### Lines of latitude on a globe



### When the sun is over head on the following latitudes

Equator 21<sup>st</sup> March and 23<sup>rd</sup> September.

Tropic of Cancer 21<sup>st</sup> June.

Tropic of Capricorn 22<sup>nd</sup> December.

### Districts in Uganda crossed by the Equator

- |          |               |             |
|----------|---------------|-------------|
| ➤ Ibanda | ➤ Namayingo   | ➤ Lyantonde |
| ➤ Kasese | ➤ Kalungu     | ➤ Kamwenge  |
| ➤ Mpigi  | ➤ Bukomasimbi | ➤ Mayuge    |
| ➤ Mukono | ➤ Buvuma      |             |
| ➤ Wakiso | ➤ Sembabule   |             |

### Lakes in Uganda crossed by the Equator

(i) Lake George

(ii) Lake Victoria

### The mountain in Uganda crossed by the Equator

Mountain Rwenzori

### East African country which is not crossed by the Equator

Tanzania.

### Countries within the Southern hemisphere

(i) Rwanda

(ii) Tanzania

(iii) Burundi

### Importance of latitudes

1. They help to locate places on a map
2. It helps to determine how far a place is North or South from it.
3. They help to determine the climate areas.

### Activity

1. When is the sun overhead the equator?

---

2. State any **two** countries found in the southern hemisphere.

---

---

3. Name the east African country not crossed by the equator.

---

4. Name **two** lakes in Uganda crossed by the Equator.

i) \_\_\_\_\_

ii) \_\_\_\_\_

5. Name the mountain in Uganda crossed by the Equator

---

---

6. Name the East African country which is not crossed by the Equator.

---

---

7. Mention any **two** importance of latitudes on a map.

i) \_\_\_\_\_

ii) \_\_\_\_\_

### Lines of longitude

- ✓ They are imaginary lines drawn on a map crossing from North to South.
- ✓ Longitudes sometimes are called Meridians.

### Examples of lines of Longitudes

a) The International dateline. ( $180^{\circ}\text{E}$  or  $\text{W}$ )

b) Greenwich Meridian marked  $0^{\circ}$

#### a.) Prime meridian / Greenwich meridian.

- ✓ The prime meridian is the main longitude and it is marked  $0^{\circ}$  because all other lines of longitude are marked beginning from it.
- ✓ The prime meridian is also called the Greenwich meridian because it passes through a Town in England called Greenwich.
- ✓ In Africa the Greenwich meridian passes through a city called Accra in Ghana.

### Other African countries crossed by the Greenwich meridian.

1. Ghana
2. Mali
3. Burkina Faso
4. Algeria

### Importance of the Prime meridian

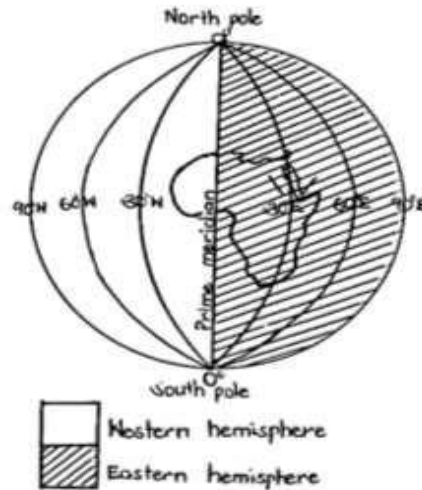
- b) It helps to determine time in GMT (Greenwich Mean Time)
- c) It helps to locate places on a map.

### b) The International Date Line

It marked 180°E or W of the Greenwich and it helps to determine the date.

### Importance of longitudes

1. They help in telling time in Greenwich Mean Time (GMT)
2. Longitude helps to locate places on a map.



### Importance of Greenwich Meridian

To helps to tell time./It determines the time zone.

### What general name is given to lines of longitude?

Meridians

### Similarities between longitudes and latitudes

1. Both are imaginary lines drawn on maps.
2. Both are used to locate places.

### Using the Prime meridian to tell the international time

- A time zone is an area/region with the same standard time.
- Different regions of the world have different time zones according to the distance from the Prime meridian.
- Places which are in the same time zone have the same standard time. e.g. Uganda, Kenya and Tanzania are in the same time zone, and so have the same standard time. (East Africa standard time)
- East Africa lies at longitude 45° while Rwanda and Burundi are 30°E of the Greenwich meridian.

### Note:

- The rotation of the earth on its axis causes days and nights.
- The earth makes one complete rotation of 360° in one day (24hours).
- Therefore, it rotates through an angle of 15° in every 1hour (60min).
- Every 15° E or W of the Greenwich meridian is a time zone.
- When you travel 15° westwards, you lose an hour while travelling 15° eastwards makes you gain an hour.
- We usually add (+) hours for places which are in the East and subtract (-) the time when finding the time for places which are in the West.
- Changing of the time to and from 24hr clock (by either adding or subtracting 12 hrs.) affects the units in which the time is given.(i.e. From am to pm and vice versa).
- Time in each time zone is calculated basing on the Greenwich Mean Time (GMT) which is at 0° longitude.

### Examples

1. Find the time in East Africa which is 45° if it is 1:00pm at GMT.

$$15^{\circ} = 1\text{hr}$$

$$45^{\circ} = \frac{45 \text{ hrs}}{15} = 3$$

Time in East Africa = 1:00pm

$$\begin{array}{r} +3.00\text{hrs} \\ \hline 4:00\text{pm} \end{array}$$

Therefore, time in East Africa is 4:00pm.

2. What time will it be in country B which is 60°W if it is 3:00pm in Ghana?

### **Solution**

$$15^{\circ} = 1\text{hr}$$

$$60^{\circ} = \frac{60 \text{ hrs}}{15} = 4\text{hours}$$

$$\begin{array}{r} 15:00\text{hrs} \\ -4.00\text{hrs} \\ \hline 11:00\text{am} \end{array}$$

Convert 3:00p.m to 24 hours clock

$$12:00 + 3:00 = 15:00$$

Therefore, the time in country B will be 11:00am.

### **Locating Uganda using the grid reference system**

- ✓ Uganda is located between latitude 4°N and 1°S and longitude 29°E and 35°E of the Greenwich meridian.
- ✓ The farthest point in the North is Zulia while Kisoro is the farthest in the South.
- ✓ Ishaka is the farthest town in the West while Amudat is the farthest in the East.
- ✓ Location of Uganda using the grid reference system.

### **MOVEMENT OF THE EARTH**

The Earth makes two movements these are: Rotation and Revolution.

#### **Rotation of the Earth is the movement of the Earth on its axis.**

An Axis is an imaginary line on which the Earth rotates.

The earth spins from East to West that is why the sun seems to be rising from the East.

The Earth takes 24 hours to make a complete rotation.

#### **Effects of rotation**

It causes days and nights.

This is because the side of the Earth that faces the sun experiences day while the other side experiences night.

#### **Revolution of the Earth is the movement of the Earth around the sun.**

It takes 365 $\frac{1}{4}$  days to make a complete revolution.

The  $\frac{1}{4}$  day makes a complete day after every 4 years.

This is known as a leap year. A leap year has no remainder when divided by four.

The month of February of a leap year has 29 days. The rest have 28 days.

#### **Effect of revolution**

It causes seasons of the year.

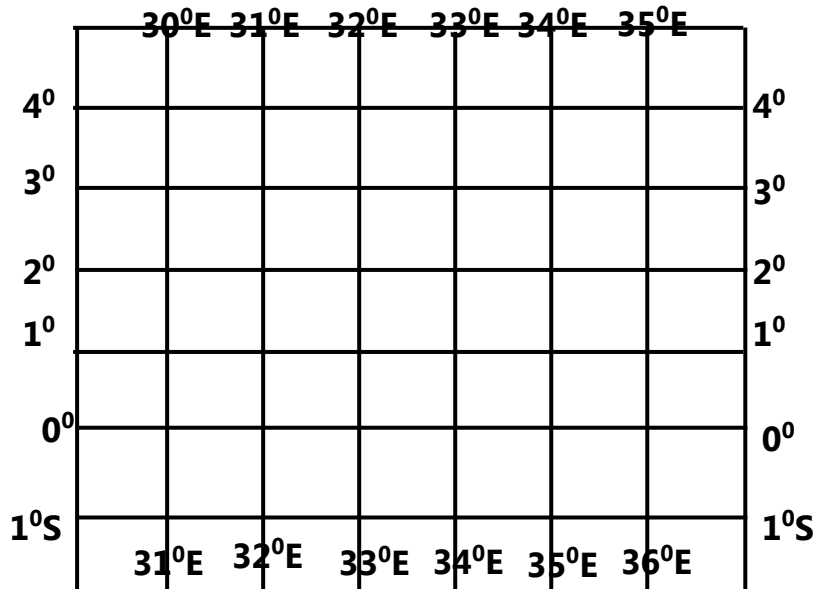
### **Note**

#### **i.) There are two types of year i.e.:**

- ✓ **Leap year** is the fourth year of every four years, which has 366 days.
- ✓ It has 29 days of February and has no remainder when divided by four.
- ✓ **Ordinary year** is the year when the month of February has 28 days and the year has 365 $\frac{1}{4}$  days.
- ✓ The revolution of the earth also causes the sun to come directly overhead the equator twice and once over the two tropics, in a year.

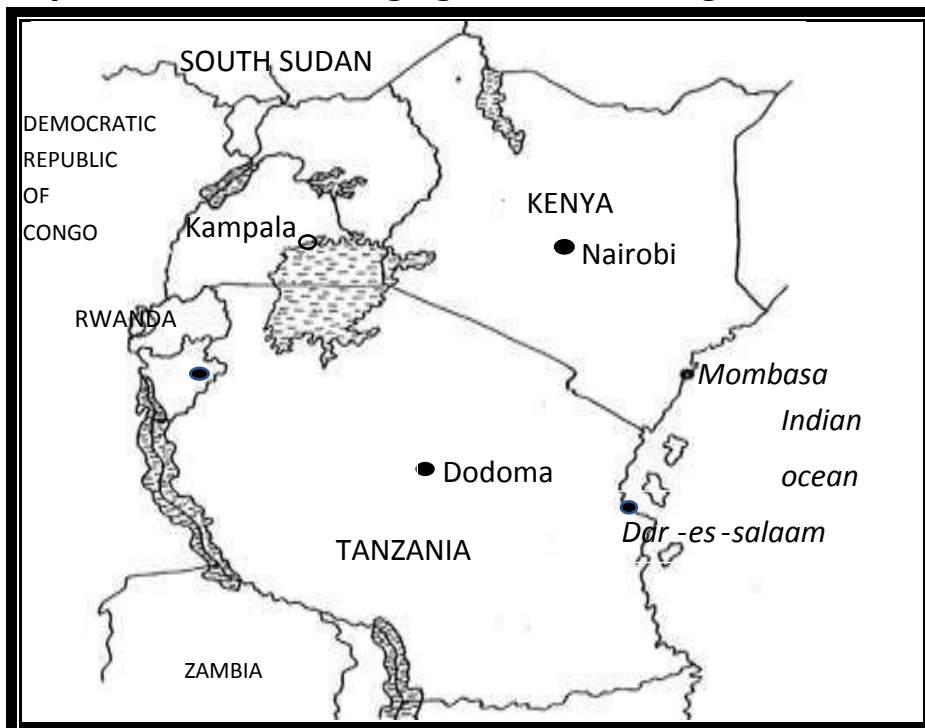
- ✓ On 21<sup>st</sup> March and 23<sup>rd</sup> September the sun is overhead the equator and these two days are called equinox meaning having equal days and nights.
- ✓ On 21<sup>st</sup> June the sun is over head the tropic cancer and in this period the Northern hemisphere receives more rainfall than the South.
- ✓ On 22<sup>nd</sup> December the sun is overhead the tropic of Capricorn and in this period the Southern hemisphere receive more rainfall than the North.

**A map showing lines of longitude and latitude**



Geographically Uganda lies between latitude **4½° N and 1½°S**, and between longitudes and **29°E and 35°E**

**Map of east Africa showing Uganda and her neighbours**



### Countries that share boundaries with Uganda

Country	Direction from Uganda	Direction to Uganda	Capital City	Current President
Kenya	East	West	Nairobi	H.E Uhuru Kenyatta
Tanzania	South	North	Dodoma	Mama Suluhu Hassan
DRC	West	East	Kinshasa	H.E Felix Tshisekedi
South Sudan	North	South	Juba	H.E Salva Kiir Mayardit
Rwanda	South West	North East	Kigali	H.E Paul Kagame

### Uganda as a land locked country.

**A land locked country** is a country without a coastline.

Uganda uses her neighbours' seaports for overseas trade

### Neighbors of Uganda which are land locked.

- (i) Rwanda.
- (ii) South Sudan
- (iii) Burundi

### Seaports Uganda uses

A Seaport is a place at the coast where ships anchor.

### Seaports that handle Uganda's imports and exports

- (i) Mombasa
- (ii) Dar-es Salaam

Uganda mostly imports and exports her goods through port Mombasa because port Mombasa is nearer to Uganda than other sea ports.

### Activity

1 State the country that share boundaries with Uganda from the:

a) East

b) North

c) South West

2 What are land locked countries?

3 State any **two** neighbors of Uganda which are not land locked.

i) \_\_\_\_\_

ii) \_\_\_\_\_

4 Mention **two** seaports that handle Uganda's imports and exports.

i) \_\_\_\_\_

ii) \_\_\_\_\_

5 Why is Kenya not a land locked country?

### Lesson

#### Imports

These are goods brought in to a country from another country.

#### Examples of imports

Vehicles, computers, telephones, vehicles, clothes, machineries

#### Exports

These are goods a country sells to another country.



### Examples of exports

Coffee, cotton, electricity

### Problems faced by a land locked country

1. High taxes are charged on goods (Imports and exports).
2. Goods delay in transit.
3. High transport cost.
4. Goods lack privacy due to thorough checking.
5. There may be damage of goods on transit.
6. There is limited trade with the rest of the world.
7. High prices for imported goods.

### Ways how landlocked countries overcome the problems they face

1. By using air transport when importing goods.
2. By using various sea ports when importing goods.
3. By promoting domestic industrial production.
4. By joining common markets in the region. e.g. East African Community (EAC)
5. By improving security along the high ways.

### Activity

1. Define the following term:  
Imports: \_\_\_\_\_  
Exports: \_\_\_\_\_
2. State any **two** examples of :  
Imports: \_\_\_\_\_  
Exports: \_\_\_\_\_
3. Why are computers referred to as the Ugandans imports?  
\_\_\_\_\_  
\_\_\_\_\_
4. Mention any **two** examples of cash cross exported by Uganda.  
\_\_\_\_\_  
\_\_\_\_\_
5. What are landlocked countries?  
\_\_\_\_\_  
\_\_\_\_\_
6. State any **two** problems faced by Uganda as a landlocked countries.  
\_\_\_\_\_  
\_\_\_\_\_
7. Suggest **two** ways Uganda can solve the problems it face as a result of being landlocked.  
\_\_\_\_\_  
\_\_\_\_\_
8. Mention any **one** common market in East Africa.  
\_\_\_\_\_

### SPELLING EXERCISE

- 1 ..... 2 .....
- 3 ..... 4 .....
- 5 ..... 6 .....
- 7 ..... 8 .....

## LESSON

### Why Uganda should have good relationship with neighbours.

1. To promote trade.
2. To get goods she doesn't have.
3. To widen market for her goods.
4. To use the neighbours seaport.
5. To promote friendship and cooperation in the country.

### How a land locked country can promote international trade

- (i) By developing railway transport.
- (ii) By using air transport.
- (iii) By promoting friendship and co-operation with her neighbours.

### How port Mombasa promotes trade in Uganda

- (i) It handles Uganda's imports and exports.

### What is smuggling of goods?

This is illegal importation and exportation of goods.

### Causes of smuggling

1. Over taxing
2. Trade I illegal goods like Marijuana, firearms
3. Fear of paying taxes
4. Need to get high profits
5. Ignorance about importance of paying taxes
6. High prices of commodity in a country

### Dangers of smuggling of goods

1. It reduces market for locally made goods.
2. It reduces revenue for the government.
3. It leads to importation of expired goods.
4. It leads to importation of substandard goods.

## Activity

1. How are imports different from the exports?

---

---

2. Mention **two** problems faced by a land locked country.

- i) 

---
- ii) 

---

3. State **two** ways how landlocked countries can overcome the problems above.

- i) 

---
- ii) 

---

4. Why should Uganda have good relationship with Kenya?

---

---

5. How can a land locked country promote international trade?

---

---

6. How does port Mombasa promote trade in Uganda?

---

---

7. What is smuggling of goods?

---

---

8. State any **two** causes of smuggling of goods.

- i) 

---

ii) \_\_\_\_\_

9. Mention any **two** dangers of smuggling of goods to the government.

i) \_\_\_\_\_

ii) \_\_\_\_\_

### Lesson

#### Non-land locked countries.

A **non-land locked country** is a country which has a coastline.

A **non-land locked country** is a country which is located along the coast.

It is also called a **coastal country**.

Non-landlocked countries have their own sea ports that handle their imports and exports.

#### Non-landlocked countries that neighbour Uganda

- 1 Kenya
- 2 Democratic Republic of Congo
- 3 Tanzania

#### Major sea ports of Uganda's neighbours.

Coastal country	Sea port
Kenya	Port Mombasa
Tanzania	Port Dar-es-salaam
Democratic Republic of Congo	Port Matadi

#### Benefits enjoyed by Non-land locked countries.

1. They pay fewer taxes on their imported goods.
2. They earn income through taxing goods for land locked countries that pass through them.
3. They can easily trade with other countries.

### ACTIVITY

1. What are coastal countries?

\_\_\_\_\_

\_\_\_\_\_

2. Mention any **two** sea ports Uganda uses.

i) \_\_\_\_\_

ii) \_\_\_\_\_

3. In which country is port Matadi found.

\_\_\_\_\_

\_\_\_\_\_

4. Name any **one** seaport found in Kenya.

\_\_\_\_\_

\_\_\_\_\_

5. Mention any **two** countries in east Africa which have direct access to their own sea ports.

i) \_\_\_\_\_

ii) \_\_\_\_\_

6. State any **two** benefits enjoyed by the coastal countries.

i) \_\_\_\_\_

ii) \_\_\_\_\_

7. In which way is port Mombasa important to Uganda?

\_\_\_\_\_

\_\_\_\_\_

8. What name is given to the countries located at the coast?

\_\_\_\_\_

\_\_\_\_\_

---

## TOPIC TWO: PHYSICAL FEATURES IN UGANDA

---

Physical features are natural landforms on the earth's surface that give it shape.

### Types of physical features

1. Relief features
2. Drainage features

### Relief features

Relief is the general appearance of land.

Relief features are the natural landforms that are identified by their altitude.

### Altitude

It is the height of the land above sea level.

### Examples of relief features

- (i) Hills
- (ii) Rift valleys
- (iii) Plains
- (iv) Plateaux
- (v) Mountains
- (vi) Valleys

### Drainage features

Drainage features are the natural landforms that contain water in them

### Examples of drainage features

1. Lake
2. Seas
3. Rivers
4. Hot springs
5. Oceans
6. Streams

### Activity

1. Define the term physical features.

---

---

2. Mention any **two** types of physical features.

- i) 

---
- ii) 

---

3. What are relief features?

---

---

4. Mention any **two** examples of relief features.

- i) 

---
- ii) 

---

5. Why are mountains called relief features ?

---

---

6. What is altitude ?

---

---

7. What are drainage features ?

---

---

8. State any **two** examples of drainage features **not** found in Uganda.

- i) \_\_\_\_\_  
ii) \_\_\_\_\_

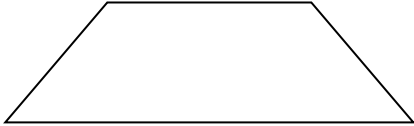
## Lesson

### Plateau

Plateau is the raised flat topped piece of land.

OR Is a raised table land

### Draw a symbol of a plateau



The plateau covers the largest part of Uganda.

It lies between 200m and 2000m above the sea level.

### Features found on a plateau

- |           |          |        |
|-----------|----------|--------|
| 1. Lakes  | •Streams | •Hills |
| 2. Rivers | •Valleys |        |

### Economic activities carried out on a plateau of Uganda

1. Agriculture
2. Tourism.
3. Fishing
4. Mining.
5. Settlement
6. Industrialization.
7. Lumbering *Αχτιωιτψ*

1. What term is used to mean the raised flat topped piece of land?

\_\_\_\_\_

2. Name the physical feature that covers the greatest part of Uganda.

\_\_\_\_\_

3. Draw a symbol of a plateau.

4. Mention **two** physical features found on a plateau.

- i) \_\_\_\_\_  
ii) \_\_\_\_\_

5. Write down any **two** activities carried out on a plateau.

- i) \_\_\_\_\_  
ii) \_\_\_\_\_

6. State any **two** importance of plateaus.

- i) \_\_\_\_\_  
ii) \_\_\_\_\_

7. State any **two** problems faced by people who live on plateau.

- i) \_\_\_\_\_  
ii) \_\_\_\_\_

8. Mention any two common places where fishing is carried out in plateau.

\_\_\_\_\_

9. What evidence is there to show that Uganda's plateau is tilted to North?

---

---

## LESSON

### Importance of plateaus in Uganda

1. They have fertile soils for crop growing.
2. They promote wildlife conservation.
3. They have plenty of pasture for animal rearing.
4. They promote tourism.
5. People carryout lumbering in forests found in plateau
6. Plateaus provide places for settlement
7. The help in formation of cyclonic rainfall.

### Problems faced by people who live on plateau

1. There is soil erosion.
2. Poor transport system especially in hilly areas.
3. Crop pests and diseases.
4. Landslides are common in hilly area.

Lake kyoga is the major lake found in the central plateau of Uganda

The highest point of Uganda is on top of mountain **Rwenzori**

The lowest point is at Nimule at Uganda's boarder with Sudan.

The plateau of Uganda is higher to the south and lower to the north.

### What evidence is there to show that Uganda's plateau is tilted to North?

River Nile flows from the south to the north of Uganda.

## Activity

1. How important is fertile soils found in the plateau to the farmers?

---

---

2. Name the type of rainfall formed in the plateau areas of Uganda.

---

---

3. State one economic activities carried out in the forested areas of Uganda's plateaus.

---

---

4. Mention two other importance of the plateaus in Uganda.

---

---

5. Mention any two physical features found on the plateau of Uganda.

---

---

6. Mention any two problems facing people living in the plateau of Uganda.

---

---

7. What evidence is there to show that Uganda's plateau is tilted to North?

---

---

8. Name one lake found in the central plateau of Uganda.

---

---

## THE HIGHLANDS/ MOUNTAINS

Highlands or mountains are areas about 2000 metres above sea level and beyond.

In Uganda, they include Mt. Rwenzori, Moroto, Mt Mufumbiro and Mt Elgon, Napak, Nkokonkreu, Mount Zulia, Muhavura

**These mountains covered a number of districts in Uganda. They include:**

Bundibugyo, Mbale, Kapchorwa, Bududa, Napak, Sironko, Moroto, Kabale, Kasese

### Types of mountains in Uganda

There are three types of mountains but we have only two in Uganda.

These are:

- (i) Block mountains / Horst Mountains
- (ii) Volcanic mountains.

### Block or Horst mountains

These mountains were formed as a result of faulting.

#### What is Faulting?

Faulting is a process where cracks develop in the rock within the earth crust as a result of tension and compression forces.

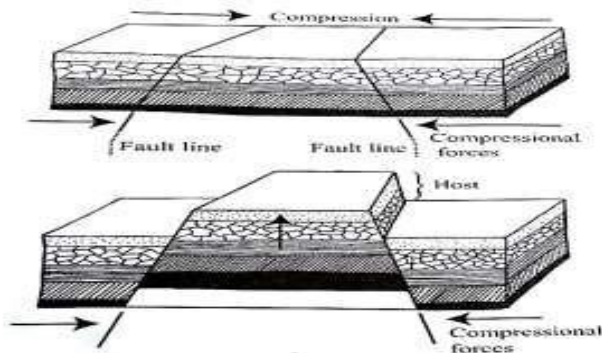
#### Forces that led to the formation of a block mountain

1. Compressional forces
2. Tensional forces.

#### Faulting leads to formation of

1. Block mountains.
2. Rift valley.
3. Fault guided rivers and lakes

#### Formation of Block Mountain



The land on either side of the cracks sinks or is pushed up.

The land that sinks forms a rift valley while that which is pushed up forms a block mountain.

An example of a block mountain in Uganda is **Mt. Rwenzori**.

### ACTIVITY

1. Mention any **two** types of mountains found in Uganda.

- i) \_\_\_\_\_
- ii) \_\_\_\_\_

2. What type of mountain is mount Nkokonjeru?

3. \_\_\_\_\_

4. State **two** forces that led to the formation of a block mountain.

- i) \_\_\_\_\_

ii) \_\_\_\_\_

5. State **one** example of a block mountain in Uganda.

\_\_\_\_\_

### SPELLING EXERCISE

1 ..... 2 .....

3 ..... 4 .....

5 ..... 6 .....

7 ..... 8 .....

### LESSON

#### **Mt. Rwenzori**

Mt. Rwenzori is a block or horst mountain.

It has very many peaks which form ranges.

It is surrounded by districts like Kasese, Kabarole and Bundibugyo

Mt. Rwenzori is shared by two countries Uganda and Democratic Republic of Congo. The highest peak on Mt. Rwenzori is Margherita.

Mt. Rwenzori was named "Mountain of the Moon" by Henry Morton Stanley.

#### **Why did Stanley name Mt. Rwenzori the mountains of the moon?**

Because of the snow on its peak which glitters like a moon.

#### **Why is Mt. Rwenzori snowcapped?**

(i) Its highest peak crosses the snow line.

Mountain Rwenzori is a source of rivers like River Mubuku, river Sebwe, River Nyamwamba, River Mpanga

#### **Reasons why there are no plants and animals at the top of Mt. Rwenzori**

1. It is too cold on the top to support plants growth on which animals feed
2. Mt. Rwenzori top is snow capped.

#### **Give reasons why it is difficult to build roads and railways in Bundibugyo**

(i) It is a mountainous area.

(ii) It is expensive to construct roads on the mountain slopes in Bundibugyo.

Bakozzo and Bamba are the tribes which live on the slopes of Mt. Rwenzori.

Transport is difficult along the slopes of Mt. Rwenzori so donkeys are mainly used as means of transport.

#### **Why would you advise the people of Bundibugyo to rear donkeys?**

For easy transport

#### **Other importance of donkeys to people of Bundibugyo**

1. It is a source of income.
2. Provides meat to the people.
3. Used for ploughing.

#### **Importance of mountain Rwenzori**

It is a source of minerals like limestones

It provides stones for building

It has fertile soil for crop growing

It promotes tourism

It gives a political boundary between Uganda and Democratic Republic of Uganda



## ACTIVITY

1. Name the highest peak on Mt. Rwenzori.  
\_\_\_\_\_
2. Why did Stanley name Mt. Rwenzori the mountains of the moon?  
\_\_\_\_\_  
\_\_\_\_\_
3. State any **two** districts in Uganda covered by Mount Rwenzori.  
\_\_\_\_\_  
\_\_\_\_\_
4. Why is Mt. Rwenzori snowcapped?  
\_\_\_\_\_  
\_\_\_\_\_
5. State the reason why there are no plants and animals at the top of Mt. Rwenzori.  
\_\_\_\_\_  
\_\_\_\_\_
6. Give any **one** reason why it is difficult to build roads and railways in Bundibugyo.  
\_\_\_\_\_  
\_\_\_\_\_
7. State any **two** rivers whose source are at mount Rwenzori.  
\_\_\_\_\_  
\_\_\_\_\_
8. State **one** mineral got from mountain Rwenzori.  
\_\_\_\_\_
9. Why would you advise the people of Bundibugyo to rear donkeys?  
\_\_\_\_\_  
\_\_\_\_\_
10. State any **two** importance of mount Rwenzori.  
\_\_\_\_\_  
\_\_\_\_\_
11. Name the mountain that gives a political boundary between Uganda and Democratic Republic of Uganda.  
\_\_\_\_\_  
\_\_\_\_\_

## LESSON

### Volcanic mountains

Volcanic mountains are mountains formed as result of volcanicity.

### What is volcanicity?

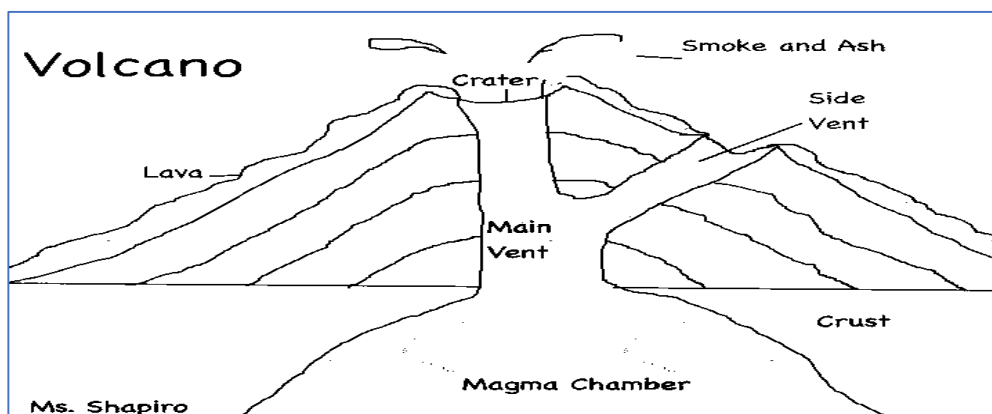
It is a process by which magma comes out of the earth crust during an eruption.

- ✓ Volcanicity can also be called volcanic activity or volcanic eruption.
- ✓ A volcano is a mountain with a vent through which magma is forced through the earth crust and onto the earth's surface.
- ✓ Magma refers to the molten rock in the earth crust.
- ✓ Lava refers to the molten rock on the earth's surface

### Materials that come out during volcanic eruption

- (i) Magma
- (ii) Ash
- (iii) Cinders
- (iv) Gases
- (v) Rocks

## A diagram showing the formation of a volcanic mountain



## Types of volcanoes

Type of volcano	Description	Example(s)
Active volcanoes	These are mountains that have erupted in the recent past and still show signs of erupting.	•Mountain Mufumbiro
Dormant volcanoes/ Sleeping volcanoes	These are mountains that have not erupted in the recent past but still show signs of erupting.	•Mountain Moroto.
Extinct volcanoes	These are mountains that do not show any signs of erupting.	Mountain Elgon Mountain Napak Mountain Morungole Mountain Zulia Mountain Kadam

## Importance of volcanicity

- (i) It leads to formation of fertile volcanic soils which are favorable for crop growing.
- (ii) Volcanic mountains attract tourists who bring in income.

## Dangers of volcanicity

1. It leads to death of people and animals.
2. It leads to destruction of property.
3. It leads to air pollution.

## Other features formed as a result of volcanicity.

1. Crater lakes.
  2. Calderas
  3. Inselbergs
- An inselberg is an isolated hill that stands above the general level of the surrounding land e.g. Labwor hill in Karamoja, Musaijamukuru hill in Hoima, Osukuru hill in Tororo. These inselbergs attract tourists who bring in income and are also a major source of minerals e.g. The Osukuru hills which provide limestone used for making cement.
    - Lava dammed lakes
    - Hot springs /geysers e.g. Kitagata hot springs in Bushenyi, Sempaya hot springs in Bundibugyo.
    - Hot springs attract tourists and also help in generation of geothermal energy.

## Lesson

### Mountain Elgon

- It is found in eastern Uganda at the border of Uganda and Kenya.
- Mt. Elgon was formed by volcanicity. It is a volcanic mountain.
- It is the second highest mountain in Uganda.
- Its highest peak is called Wagagai
- It is locally known as Mt. Masaba
- Joseph Thomson was the first European explorer to see mountain Elgon.
- Mountain Elgon national park is located on mountain Elgon.

### Districts that share part of mountain Elgon

1. Mbale
2. Sironko
3. Kapchorwa
4. Manafwa

### Rivers that originate from mountain Elgon

1. River Manafwa
2. River Malaba
3. River Mpologoma
4. River Nzoia in Kenya

### Guiding questions

#### 1. Which people live on the slopes of Mt. Elgon?

Bagisu/ Bamasaba

#### How the Bagisu are similar to Baganda and Chagga of Tanzania

- (i) Both are Bantu.
- (ii) Both are farmers who grow matooke and coffee.
- (iii) Both the Bagisu and Chagga are highland Bantu tribes.

#### How the Bagisu are similar to Baganda in their economic activities

- (i) Both are farmers.
- (ii) Both grow coffee.

#### Factors that favor Arabic coffee growing on the slopes of Mt. Elgon

- (i) Presence of fertile volcanic soils.
- (ii) There is reliable rainfall which favors Arabica coffee.
- (iii) There are low temperatures needed by Arabica coffee

#### How the formation of Mt. Elgon different from that of Mt. Rwenzori

Mt. Elgon was formed by volcanicity while Mt. Rwenzori was formed by faulting.

#### 6. Why the slopes of Mt. Elgon are densely populated.

- (i) Presence of fertile volcanic soils for agriculture.
- (ii) Favorable climate for agriculture.

#### 7. In Uganda which type of coffee is grown best in volcanic soils?

Arabica coffee

#### 8. How does Mt. Elgon influence the climate of Mbale?

- (i) It helps in formation of relief rainfall.

## Activity

1. State any **two** districts that share part of mountain Elgon in Uganda.

---

---

2. Mention any **two** rivers that originate from mountain Elgon

---

---

3. Which people live on the slopes of Mt. Elgon?

---

---

4. How the Bagisu are similar to Baganda and Chagga of Tanzania?

---

---

5. How the Bagisu are similar to Baganda in their economic activities?

---

6. Mention any **two** factors that favor Arabic coffee growing on the slopes of Mt. Elgon

---

7. How the formation of Mt. Elgon different from that of Mt. Rwenzori?

---

8. Why the slopes of Mt. Elgon are densely populated?

---

9. In Uganda, which type of coffee is grown best in volcanic soils?

---

10. How does Mt. Elgon influence the climate of Mbale?

---

### SPELLING EXERCISE

1 ..... 2 .....

3 ..... 4 .....

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### LESSON

#### Muhavura Mountain (4127m)

- ✓ They are located in south western Uganda at the boarder of Uganda, Rwanda and DRC. It is the third highest mountain in Uganda
- ✓ Mt. Mufumbiro was formed by volcanicity.
- ✓ **The three ranges which lie in Uganda are:**
  - (i) Muhavura 4127m
  - (ii) Mgahinga
  - (iii) Sabinyo 3645m

It forms a range of mountains in the Kigezi sub-region in South Western part of Uganda.

The Mufumbiro range is a home for the mountain gorillas in Bwindi and Mgahinga national park.

Mountain Mufumbiro mainly occupies Kabale, Kisoro and Kanungu districts.

The area around mountain Mufumbiro was referred to as "the Switzerland of Africa" by Winston Churchill because it has features which are similar to those of the Alps Mountains in Switzerland.

#### Tribes that live on the slopes of mountain Mufumbiro

Bakiga , Bafumbira, Bakiga, Bahororo, Batwa

#### Crops mainly grown on slopes of mountain Mufumbiro

1. Potatoes
  2. Sorghum
  3. Vegetables
  4. Pyrethrum
- ✓ Muhavura is the highest peak on Mt. Mufumbiro ranges.
  - ✓ It is a home of **mountain Gorillas**.

### Activity

1. Name the highest peak of mount Mufumbiro.  
\_\_\_\_\_
2. State the common tourist attraction found at mount Mufumbiro.  
\_\_\_\_\_
3. Name any **two** crops grown on the slopes of mount Mufumbiro.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_
4. Mention any **two** tribes which live at the slopes of mount Mufumbiro  
\_\_\_\_\_  
\_\_\_\_\_
5. Mention any **two** districts in Uganda covered by mount Mufumbiro.  
\_\_\_\_\_  
\_\_\_\_\_
6. Why is Arabic coffee mainly grown on the slopes of Mount Elgon not mount Mufumbiro?  
\_\_\_\_\_  
\_\_\_\_\_
7. How is the formation of Mt. Elgon different from that of Mount Rwenzori?  
\_\_\_\_\_  
\_\_\_\_\_
8. Why are the slopes of mount Mufumbiro densely populated?  
\_\_\_\_\_  
\_\_\_\_\_
9. In Uganda, which type of coffee is grown best in volcanic soils?  
\_\_\_\_\_  
\_\_\_\_\_

### Lesson

#### Mountain Moroto

- ✓ It is located in the North Eastern part of Uganda.
- ✓ Its highest peak is called Sokdek.
- ✓ Sogolomon is the second highest peak of mountain Moroto.
- ✓ The Karimojong tribe mainly lives on the slopes of mountain Moroto.
- ✓ The Karimojong mainly carry out pastoralism.
- ✓ The area around mountain Moroto receives very little rainfall because it receives dry winds from the North East.
- ✓ People living around the mountain are Karamojong and the Jie of Kenya.

#### What type of rainfall is received around mountainous areas

It is relief rainfall.

#### How mountains are important to the people who live near them

1. They help in formation of rainfall.
2. They modify the climate of an area.
3. They are fertile soils for agriculture.
4. Attract tourists. It is a tourist attraction centre.
5. Mountains form a natural boundary between countries.
6. Mountains are sources some rivers.

### ACTIVITY

1. Which part of Uganda is mount Moroto located?  
\_\_\_\_\_
2. Name the highest peak of Mount Moroto.  
\_\_\_\_\_
3. Which tribes mainly lives on the slopes of Mount Moroto?  
\_\_\_\_\_
4. State the main economic activities of the tribe stated above.  
\_\_\_\_\_

5. Why do areas around Mount Moroto receive very little rainfall?

6. Name the type of rainfall received around mountainous areas.

7. State any **two** reasons why mountains are used as natural boundaries of the countries.

8. How does fertile soil at the slopes of mountain promote agriculture?

9. Mention any **two** disadvantages of Mount Moroto to people living around it.

## LESSON

### How do mountains influence the climate of an area?

They help in formation of rainfall.

### Problems faced by people who live in mountain areas of Uganda

1. There is soil erosion.
2. There are landslides.
3. There is poor transport.
4. Land shortage due to high population.
5. There is a problem of land fragmentation.
6. Poor sanitation.

### Solutions to problems faced by the people in mountainous areas

1. They rear donkeys to simplify transport.
2. They construct winding roads though expensively.
3. The farmers terrace their land to control soil erosion.

*Major mountains in Uganda*



### Activity

1. Why is soil erosion common in Kabale and Mbale?  
\_\_\_\_\_  
\_\_\_\_\_
2. Why is soil erosion not common in Karamoja sub region?  
\_\_\_\_\_  
\_\_\_\_\_
3. Write **two** ways how farmers can control soil erosion in Mbale district.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_
4. What is land fragmentation?  
\_\_\_\_\_  
\_\_\_\_\_
5. What causes land fragmentation?  
\_\_\_\_\_  
\_\_\_\_\_
6. Why do farmers in Kabale terrace their land?  
\_\_\_\_\_  
\_\_\_\_\_
7. Why are landslides very common in Kabale and Kisoro?  
\_\_\_\_\_  
\_\_\_\_\_
8. Give **one** reason why there is land shortage in Kabale district.  
\_\_\_\_\_  
\_\_\_\_\_
9. Why do tourists like to visit mountainous areas?  
\_\_\_\_\_  
\_\_\_\_\_

### Lesson

#### Valleys

Valley is a low land between hills or mountains.

#### Importance of valleys

1. It is a tourist attraction centre.
2. Rift valley lakes have minerals e.g. salt and soda ash.
3. Pastoralism is carried out in valleys
4. It has plenty of pasture for animal rearing.

#### Problems faced by people living in the valleys

1. Poor transport system.
2. Landslides are common.
3. It is affected by soil erosion
4. Floods and droughts are common
5. Attack from wild animals.

#### Rift Valleys in Uganda

It is a long and wide depression on the earth surface with escarpments.

#### How was a Rift Valley formed?

1. It was formed by faulting process helped by Tensional forces.
2. It starts from R. Jordan and ends at Beira in Mozambique.

Formation by tensional forces	Formation by Compressional forces

### Characteristics of Rift Valley lakes

1. They are deep.
2. They are long
3. It is wide
4. It has escarpments

### What is an escarpment?

It is the steep side of Rift Valley.

### The rift valley has two branches/ arms namely

Western rift valley (runs through Uganda)

The Eastern rift valley arm

### Western arm of rift valley

It begins from Uganda and runs through Rwanda and Tanzania

Western arm of rift valley is also known as the **Albertine rift valley**.

**Albertine escarpment** is the major escarpment of the Western rift valley.

-Crude oil was discovered in the Albertine region.

### Features found in the rift valley.

1. Lakes e.g., Lake Albert, Lake Edward and Lake George.
2. Rivers ❖ Valleys
3. Hills
4. Mountains

### Lakes in Western branch of the valley in Uganda

- |                 |                   |
|-----------------|-------------------|
| (i) Lake Albert | (iii) Lake Edward |
| (ii) Lake Katwe | (iv) Lake Mutanda |
| (v) Lake George |                   |

### Some lakes in Uganda which are not found in rift valley include:

- |                  |                |                  |
|------------------|----------------|------------------|
| 1. Lake Victoria | 3. Lake Mburo  | 5. Lake Kwana    |
| 2. Lake Kyoga    | 4. Lake Wamala | 6. Lake Nabugabo |

### Characteristics of Rift Valley lakes

5. They have salty water.
6. They are deep.
7. They have no major outlets
8. They have more inlets than outlets.
9. They are long and narrow.

### Economic activities carried out in rift valley

- |            |                 |                |
|------------|-----------------|----------------|
| 1. Mining  | 3. Tourism      | 5. Pastoralism |
| 2. Fishing | 4. Crop farming |                |



## ACTIVITY

1. What is an escarpment?

\_\_\_\_\_

2. Which mineral was discovered in the Albertine region?

\_\_\_\_\_

3. Mention any **two** features found in the rift valley.

i) \_\_\_\_\_

ii) \_\_\_\_\_

4. Mention any **two** lakes found in Western branch of the rift valley in Uganda.

i) \_\_\_\_\_

ii) \_\_\_\_\_

5. Write down any **two** lakes in Uganda which are not found in rift valley arm.

i) \_\_\_\_\_

ii) \_\_\_\_\_

6. State **two** characteristics of Rift Valley lakes found in Uganda.

i) \_\_\_\_\_

ii) \_\_\_\_\_

7. State **two** economic activities carried out in rift valleys.

i) \_\_\_\_\_

ii) \_\_\_\_\_

## SPELLING EXERCISE

**1** ..... **2** .....

**3** ..... **4** .....

**5** ..... **6** .....

**7** ..... **8** .....

## LESSON

### Importance of Rift Valleys

1. It is a tourist attraction centre.
2. Rift valley lakes have minerals e.g. salt and soda ash.
3. Pastoralism is carried out in Rift valleys
4. It has a large space where wild animals are kept in game parks.
5. It has lakes where fishing is carried out.
6. It promotes wild life conservation.
7. It has plenty of pasture for animal rearing.
8. It forms natural boundaries between countries

### Problems faced by people living in rift valleys

1. Poor transport system around rift valley areas.
2. Landslides are common.
3. It is affected by soil erosion
4. Floods are common
5. Attack from wild animals
6. Attacks from pests which destroy crops
7. Attacks from vectors which spread diseases
8. It experiences very high temperatures due to low altitude.

### Importance of Lake Katwe to Uganda's economy

1. It provides salt to people of Uganda.
2. It attracts tourists.
3. It is a source of government revenue
4. Provides employment.

### Activity

1. Suggest any **two** dangerous wild animals found in the rift valleys lakes in Uganda.  
\_\_\_\_\_
2. How is lake Katwe important to Uganda government?  
\_\_\_\_\_
3. In which way are vectors a problem to people living in the rift Valley arm.  
\_\_\_\_\_  
\_\_\_\_\_
4. Why are there no fishing activities on Lake Katwe?  
\_\_\_\_\_  
\_\_\_\_\_
5. Mention **two** weather disaster's which commonly affect people living in the rift valleys.  
\_\_\_\_\_  
\_\_\_\_\_
6. State **one** importance of rift valley to the following groups of people:  
Tourists: \_\_\_\_\_  
Livestock farmers: \_\_\_\_\_  
Miners: \_\_\_\_\_
7. State any **two** problems faced by people living in the rift valleys.  
\_\_\_\_\_  
\_\_\_\_\_
8. Mention any **two** importance of Rift Valley to the people living on it.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_

### Lesson

#### Drainage features in Uganda

##### Lakes

- ✓ A lake is a big depression filled with water on the earth surface.
- ✓ A lake is a mass of non-flowing water on the earth's surface.
- ✓ A lake is a large area of water that is surrounded by land.

##### Types of lakes

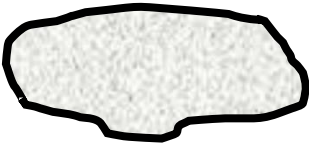

1. Permanent lakes.
2. Seasonal lakes.

**Permanent lakes** are lakes which contain water throughout the year.

##### Examples of permanent lakes in Uganda

1. Lake Victoria.
2. Lake Edward.
3. Lake Mburo
4. Lake George.
5. Lake Albert
6. Lake Kyoga

Seasonal lakes are lakes which dry up in the dry season and get water in the wet season.

	
A map symbol of a permanent lake	A map symbol of a seasonal lake

### Types of Lakes formation

- (i) Depression / Down warped lake
- (ii) Rift valley lakes.
- (iii) Man-made lakes.
- (iv) Crater lakes.
- (v) Ox-bow lakes.
- (vi) Lava dammed lakes.

### Activity

1. What is a lake?

---

2. Mention any **two** types of lakes.

---

3. How are permanent lakes different from seasonal lakes?

---

4. Name the largest permanent lake found in Uganda.

---

5. Mention any other **two** examples of permanent lakes in Uganda.

---

6. State **two** types of lakes formation.

---

### Lesson

#### Depression Lakes

These are lakes which were formed as a result of down warping. They are also called depression lakes

#### Examples of down warped lakes

Lake Victoria

- |                 |                |                  |
|-----------------|----------------|------------------|
| 1. Lake Kachira | 4. Lake Opeta  | 7. Lake Wamala   |
| 2. Lake Kyoga   | 5. Lake Bisina | 8. Lake Nakivali |
| 3. Lake Mburo   | 6. Lake Kwana  |                  |

#### Characteristics of depression lakes

- (i) They are shallow.
- (ii) They are wide
- (iii) They have fresh water
- (iv) They have both inlets and outlets.
- (v) They have irregular shapes

#### Give one reason why depression lakes have fresh water

They have both inlets and outlets.

#### How was Lake Victoria formed?

It was formed as a result of down warping.

## LESSON

1. Define depression lakes.

2. Why is lake Victoria called a depression lake?

3. State **two** examples of down warped lakes.

i)

ii)

4. Give any **two** characteristics of depression lakes.

i)

ii)

5. Give **one** reason why depression lakes have fresh water.

6. Name the largest fresh water lake in Uganda.

### Lake Victoria

- It is the largest lake (Fresh Water Lake) in Uganda, East Africa and Africa.
- It is shared by Uganda, Kenya and Tanzania.
- Its traditional name is Nyanza (For Kenya and Tanzania) and Nalubaale in Uganda.
- Nalubaale means the **home of gods**
- It is referred to as an inter-territorial lake because it is shared by three countries in East Africa.
- It has inland ports which promote inter-territorial trade through handling the goods of the three East African countries.
- It was renamed by a British explorer called **John Hannington Speke** after the queen of England called **Victoria** at the time of his coming to Uganda.

### Inland ports on Lake Victoria in Uganda

A port is a place on a water body where water vessels load and off loads

1. Port Bell.
2. Port Bukakata
3. Port Jinja
4. Port Entebbe

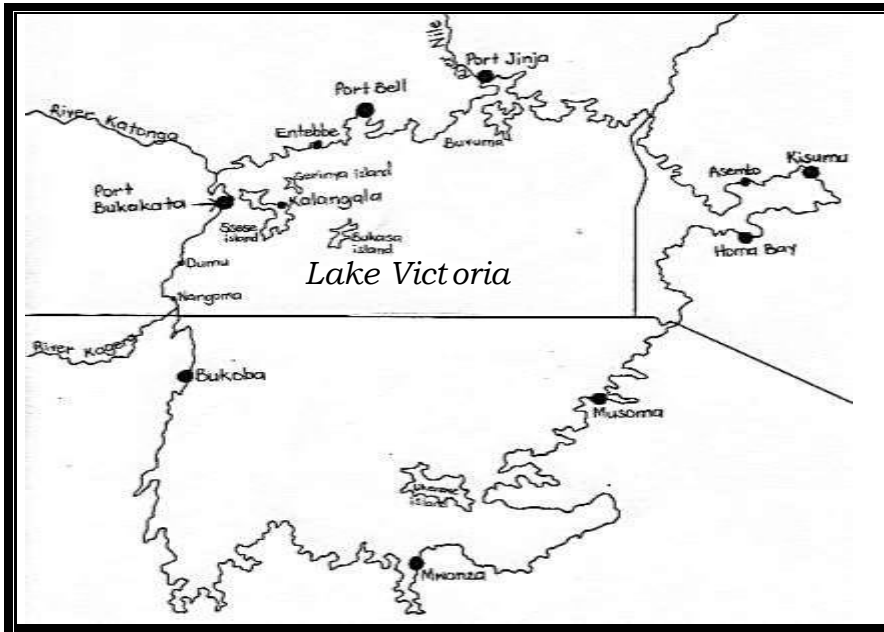
### Other ports found on Lake Victoria in Tanzania

1. Port Bukoba
2. Port Musoma
3. Port Kisumu

### Ports found on Lake Victoria in Kenya

4. Port Mwanza
5. Port Asembo
6. Home bay in

## Inland ports on Lake Victoria



It has many islands e.g. Sese Island, Bugala, Kome which form the present Kalangala District.

### Major economic activities carried out by the people of Kalangala

1. Fishing
2. Tourism
3. Lumbering
4. Farming
5. charcoal burning

### Problems faced by people of Kalangala district

1. Poor communication and transport network.
2. There is easy spread of water borne diseases.
3. Shortage of electricity.
4. Poor infrastructure
5. Illiteracy

### Give the main product got from oil palm in Kalangala

Cooking oil

### Other products got from Oil palm

- (i) Soap
- (ii) Cosmetics.

### How will the people of Kalangala benefit from oil palm growing?

- ✓ It creates chances of employment.
- ✓ It is a source of income or foreign exchange.
- ✓ It will lead to the development of infrastructure.

### Activity

1. Why is Lake Victoria referred to as an inter-territorial lake of Africa?  
\_\_\_\_\_
2. State **two** countries which shared border with Uganda from lake Victoria.  
\_\_\_\_\_  
\_\_\_\_\_
3. How is charcoal burning a problem to the environment?  
\_\_\_\_\_  
\_\_\_\_\_
4. Name the explorer who remained Lake Victoria.
5. \_\_\_\_\_  
\_\_\_\_\_
6. Mention any **two** inland ports found on Lake Victoria in Uganda.  
\_\_\_\_\_  
\_\_\_\_\_
7. Mention any **two** economic activities carried out in Kalangala.

- 
- 
8. Suggest **two** problems faced by people of Kalangala.  

---

---
  9. Mention any **two** islands found in Kalangala district.  

---

---
  10. Give the main product got from oil palm in Kalangala district.  

---
  11. How will the people of Kalangala benefit from oil palm growing?  

---

### Lesson

#### **How Kalangala is economically important to Uganda**

1. Fishing takes place.
2. Attracts tourists.
3. Farming is carried out.
4. There is oil palm growing.
5. There is a lot of lumbering

#### **Importance of Lake Victoria towards the industrial development**

1. It provides fish to fish processing industries.
2. It provides water to industries for cooling machines.
3. It is used in transporting the finished goods

#### **Why does Kalangala receive convectional rainfall?**

1. It is surrounded by lake Victoria
2. It has thick forests.

#### **How does Lake Victoria promote trade?**

It provides water transport.

#### **Why there are many people on the shores of Lake Victoria**

1. There is favorable climate for farming..
2. Presence of fertile soils for farming.
3. Provides job opportunities to people.eg fishermen, captains, sailors

### ACTIVITY

1. State any **two** main economic activities carried out by the people of Kalangala.  

---

---

2. Mention any **two** problems faced by people of Kalangala district  

---

---

3. State any **two** economic importance of Kalangala district to Uganda.  

---

---

4. Mention any **two** importance of Lake Victoria to industrial sectors.

i) \_\_\_\_\_

ii) \_\_\_\_\_

5. Why do you think Kalangala receive convectional rainfall?  

---

---

6. In which **two** ways does Lake Victoria promote trade?

i) \_\_\_\_\_

ii) \_\_\_\_\_

7. Why there are many people on the shores of Lake Victoria?

8. Mention **two** problems faced by fishing industry in Uganda.

i) \_\_\_\_\_

ii) \_\_\_\_\_

9. State **one** importance of inland ports of Uganda.

\_\_\_\_\_

## LESSON

### Problems faced by fishermen/ fishing industry in Uganda

1. Poor transport system.
2. Poor storage facilities.
3. Poor methods of preserving fish.
4. Presence of the water hyacinth.
5. Presence of dangerous marine animals.

### Importance of inland ports of Uganda

- (i) They handle Uganda's imports and exports.
- (ii) They provide employment to people.

### Problems caused by water hyacinth

- (i) It kills fish.
- (ii) It makes transport difficult.
- (iii) It destroys fishing nets.
- (iv) It is a habitat for dangerous wild water animals like snakes.

### Ways of destroying the water Hyacinth

1. Using beetles (biological method)
2. Using machines to remove it.
3. By hand picking of the water hyacinth.

### Importance of water hyacinth to people

1. It can be used to make crafts
2. It can be used to make animal feeds.
3. It can be used to make manure.

## Activity

1. What is fishing?

\_\_\_\_\_

\_\_\_\_\_

2. Mention any two problems faced by fishermen on Lake Victoria.

\_\_\_\_\_

\_\_\_\_\_

3. How is Kalangala district economically important to Uganda?

\_\_\_\_\_

\_\_\_\_\_

4. Mention any **two** importance of water hyacinth to people.

i) \_\_\_\_\_

ii) \_\_\_\_\_

5. State **two** problems caused by water hyacinth.

i) \_\_\_\_\_

ii) \_\_\_\_\_

6. Mention any **two** importance of water weeds to the people surrounding water bodies.

\_\_\_\_\_

\_\_\_\_\_

7. State any two common animals which can hide in the water weeds.

8. Write down **two** ways of destroying the water Hyacinth

- i) \_\_\_\_\_  
ii) \_\_\_\_\_

### Lesson

#### Lake Kyoga

- It has fresh water. (It is a fresh water lake).
- It was formed by down warping.
- It is the swampiest lake in Uganda. This is because it is shallow.
- It is shallow because it is highly stilted.
- The Victoria Nile flows from Lake Victoria towards lake Kyoga.
- This natural evidence proves that Lake Victoria is on a higher altitude than lake Kyoga
- Lake Kyoga is found in the centre of Uganda.

#### Inland ports of Lake Kyoga

- Port Lwampanga.
- Port Namasale.

#### Inlets of Lake Kyoga

- Victoria Nile.
- River Sezibwa.
- River Kafu.

### LESSON

1. Name the process by which lake Kyoga was formed.

2. Name the part of river Nile which flows from Lake Victoria towards lake Kyoga.

3. Why do lake Victoria flow northwards?

4. Name the lake found in the center of Uganda.

5. Name the swampiest lake in Uganda.

6. State the reason why lake kyoga is the shallowest lake in Uganda.

7. Mention **two** inland ports found on Lake Kyoga.

- i) \_\_\_\_\_  
ii) \_\_\_\_\_

8. State **two** inlets of Lake Kyoga.

- i) \_\_\_\_\_  
ii) \_\_\_\_\_

### SPELLING EXERCISE

1 ..... 2 .....

3 ..... 4 .....

5 ..... 6 .....

7 ..... 8 .....

#### Rift valley lakes

Rift valley lakes are lakes which were formed as a result of faulting.

- i) They lie along the rift valley.



### Examples are of rift Valley lakes

1. Lake Albert
2. Lake George
3. Lake Edward.

### Characteristics of rift valley lakes

They are salty (they have salty water)

1. Most of them have no outlet rivers.
2. They are deep
3. They are along in shape.
4. They have inland drainage.
5. They are narrow
6. They have steep sides

### Reasons why rift valley lakes are salty

1. They have no outlets/inland drainage
2. They lie on salty basement rocks.
3. They have salty ashes.

Note:-Lake Katwe lies on the floor of the rift valley but it is not considered to be a rift valley lake because it was formed as a result of volcanicity.

### Examples of salty lakes

1. Lake Albert
2. Lake George
3. Lake Edward

### Activity

1. What are rift valley lakes?

\_\_\_\_\_

2. Mention any **two** examples of rift valley lakes.

- i) \_\_\_\_\_
- ii) \_\_\_\_\_

3. State any **two** characteristics of rift valley lakes.

- i) \_\_\_\_\_
- ii) \_\_\_\_\_

4. Mention any **two** inland ports found on lake Kyoga.

\_\_\_\_\_

5. State any **two** inlets of lake Kyoga.

\_\_\_\_\_

6. Suggest **two** reasons why rift valley lakes are salty.

- i) \_\_\_\_\_
- ii) \_\_\_\_\_

7. How important is lake Katwe to the people of Uganda?

\_\_\_\_\_

8. Mention any **two** examples of salty lakes found in Uganda.

\_\_\_\_\_

9. State any **one** reason why Lake Katwe is not considered to be a rift valley lake.

\_\_\_\_\_

### Lesson

#### Lake George

It is the shallowest lake in Western Uganda formed by faulting.

-It is joined to Lake Edward by Kazinga Channel.

-It is crossed by the Equator. The first explore to reach this lake was Henry Morton Stanley.

#### What is the major tourist attraction found at Kazinga Channel?

Hippopotamus

#### Activities carried out on Kazinga Channel

**LAKE EDWARD**

- It is a rift valley lake formed by faulting process.
- It forms a natural boundary between Uganda and Democratic Republic of Congo.
- It is connected to Lake George by Kazinga channel. It is connected to Lake Albert by River Semliki.
- Kazinga channel has the biggest population of hippopotamuses in Uganda.
- Kazinga channel is located in Queen Elizabeth national park.
- Henry Morton Stanley was the first European explorer to see Lake Edward.

**ACTIVITY**

1. Name the feature that connects Lake George to Lake Edward.

---



---

2. State any **two** lakes in Uganda crossed by the equator.

---



---

3. Name any **two** lakes which were seen by Henry Morton Stanley.

---



---

4. What is the major tourist attraction found at Kazinga Channel?

---



---

5. State one reason why fishing activities are impossible on Kazinga Channel.

6. Mention any **two** economic activities carried out on Kazinga Channel.

i) 

---

ii) 

---

7. In which national park is Kazinga channel located?

---



---

8. Which game parks has the biggest population of hippos in Uganda?

---



---

9. Name the river which connects lake Edward to lake Albert.

---



---

10. Name the lake that forms a natural boundary between Uganda and Democratic Republic of Congo.

---



---

**Lake Albert**

- It is the second largest lake in Uganda.
- It was formed by faulting. It is found in the western rift valley arm.
- It forms a natural boundary between Uganda and Democratic Republic Congo.
- It's traditional name is Mwitanzige which means the killer of locusts.
- It was named Albert by Sir Samuel Baker.
- It was named Albert after Sir Albert who was the husband of Queen Victoria of England
- It has a famous Port known as Port Butiaba

**Reasons why Port Butyaba was built**

1. To link Uganda to Democratic Republic of Congo.
2. To promote transport.
3. To handle Uganda imports and exports.

### Other inland ports on Lake Albert

1. Port Ntoroko.
2. Port Wanseko.

### Activities carried out on Port Butyaba

- |                |                     |
|----------------|---------------------|
| (i) Trade      | (iv) Fishing        |
| (ii) Transport | (v) Fish processing |
| (iii) Tourism  |                     |

### ACTIVITY

1. Name **two** lakes that form a natural boundary between Uganda and Democratic Republic of Congo.  
\_\_\_\_\_
2. Name the second largest lake in Uganda.  
\_\_\_\_\_
3. Name the European explorer who remade lake Albert.  
\_\_\_\_\_
4. State any **two** inland ports found on lake Albert.  
\_\_\_\_\_  
\_\_\_\_\_
5. Mention any **two** reasons why port Butyaba was built on lake Albert.  
\_\_\_\_\_  
\_\_\_\_\_
6. State any **two** economic activities carried out on Port Butyaba.  
\_\_\_\_\_  
\_\_\_\_\_
7. Name the lake in Uganda which was formerly known as the killer of locusts.  
\_\_\_\_\_
8. Mention any **two** importance of lake Albert to people surrounding it.  
\_\_\_\_\_  
\_\_\_\_\_

### LESSON

#### Lake Mburo

It is found in Mbarara district.

A part of Lake Mburo is a national game park.

#### Importance of Lake Mburo to Uganda's economy

1. Creates chances of employment.
2. It earns foreign exchange through tourism

#### How lakes influence the climate of an area

They help in the formation of rainfall.

#### Bad fishing practice in Uganda

- (i) Use of poison.
- (ii) Using undersized fishing nets/equipment to catch fish.
- (iii) Catching of young fish.

### Activity

1. Name the lake on which Port Butyaba was built.  
\_\_\_\_\_  
\_\_\_\_\_
2. Suggest **two** reasons why Port Butyaba was built.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_
3. Apart from Port Butyaba, Mention any other inland ports on Lake Albert.  
\_\_\_\_\_  
\_\_\_\_\_

4. State **two** importance of Lake Mburo to Uganda's economy.

- i) \_\_\_\_\_  
ii) \_\_\_\_\_

5. Name the game park found on lake Mburo.

\_\_\_\_\_

\_\_\_\_\_

7. State any **two** importance of Lake Mburo to the economy of Uganda.

\_\_\_\_\_

8. Suggest **two** reasons why fishing activity is not allowed on lake Mburo.

- i) \_\_\_\_\_  
ii) \_\_\_\_\_

### Lesson

#### Crater lakes

A crater is a hollow or depression on top of an extinct volcano.

A crater lake is a hollow or depression filled with water on top of an extinct volcano.

#### Crater lakes in Uganda

- |                   |                |               |
|-------------------|----------------|---------------|
| 1. Lake Bunyonyi  | 4. Lake Saka   | 7. Lake Katwe |
| 2. Lake Nyamunuka | 5. Lake Nyungu |               |
| 3. Lake Nyakasura | 6. Lake Rutoto |               |

#### Lake Katwe

Lake Katwe is a crater lake. it was formed as a result of volcanic action. (Volcanicity)

Lake Katwe is found in the rift Valley arm but it is not a rift valley lake. this is because it was formed by volcanicity It is widely known for salt mining and production.

#### Lava dammed lakes

These are lakes formed when lava from erupting volcano blocks the river course.

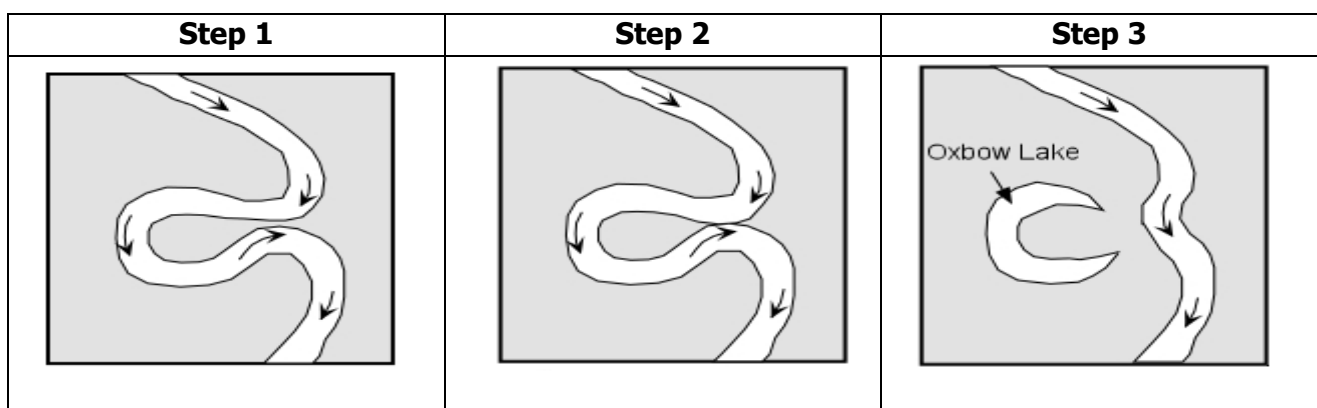
#### Examples include

Lake Mutanda (Kisoro district), Lake Bunyonyi, Lake Bulera, Lake Mulehe.

Lake Bunyonyi is the deepest lake in Uganda.

#### Ox-bow lakes

These lakes were formed as a result of river meandering and deposition.



#### Examples of rivers with ox bow lakes

1. River Semiliki
2. River Rwizi

#### Man-made lakes

These were formed as a result of human activities like dam construction. Example of man-made lake in Uganda is Kabaka's lake, Kajjansi Lake and Kibimba Lake, Lake Nasser in Egypt

#### Location of major lakes and rivers on the map of Uganda

### Activity

1. Name the type of lakes found on a dead volcanic mountain.  
\_\_\_\_\_
2. State **two** examples of crater lakes in Uganda.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_
3. How are ox bow lakes formed?  
\_\_\_\_\_
4. Name the deepest lake in Uganda.  
\_\_\_\_\_
5. Why is lake Katwe not a rift valley lake yet is found in the rift Valley arm?  
\_\_\_\_\_
6. What are lava dammed lakes?  
\_\_\_\_\_
7. State **two** examples of lava dammed lakes found in Uganda.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_
8. Name the lakes which were formed as a result of river meandering.  
\_\_\_\_\_
9. Mention any **two** examples of man-made lake in Uganda.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_

### Lesson

#### Activities carried out on and around lakes

- |                 |                    |                      |
|-----------------|--------------------|----------------------|
| 1. Fishing.     | 3. Tourism         | 5. Trading.          |
| 2. Crop growing | 4. Transportation. | 6. Industrialization |

#### Importance / advantages of lakes to man

1. They help in generation of Hydro Electric Power.
2. lakes provide water transport.
3. lakes help in formation of rainfall.
4. lakes are homes of aquatic animals.
5. lakes are sources of fish.
6. lakes provide water for irrigation, industrial and home use.
7. Some lakes have mineral deposits e.g. lake Albert has oil.

#### How do people misuse lakes

1. By over fishing
2. By fish poisoning
3. Through pouring wastes materials in water bodies.

#### Dangers of living near lakes

1. Flooding of the area.
2. Easy spread of water borne diseases
3. Drowning
4. They harbor dangerous aquatic animals
5. They harbour disease vectors.
6. lakes hinder road and railway construction.

#### Problems facing lakes in Uganda

1. Silting which reduces the depth of water bodies.
2. Overuse of water from lakes and rivers

3. Drought which lowers the water level.
4. Dumping of wastes into water bodies.
5. Over fishing

### **Ways of caring for the lakes**

1. Avoid using poison to catch fish
2. Avoid water pollution
3. Planting trees around the lakes

### **Activity**

1. Mention any **two** economic activities carried out on and around lakes.

---



---

2. State any **two** advantages of lakes to man

---



---

3. Name the type of electricity generated from fast running water.

---

4. What are aquatic animals?

---



---

5. Mention any **two** means of water transport.

---

6. Mention any **two** examples of aquatic animals.

---



---

7. state any **two** ways how lakes promote agriculture in Uganda.

---



---

8. How do people misuse lakes in Uganda?

---

9. State any **two** dangers of living near lakes

---



---

10. Mention any **two** common problems facing lakes in Uganda

---



---

11. Write down **two** ways of caring for the lakes

---



---

12. State **one** effect of sitting to the lakes.

---



---

### **Rivers in Uganda**

A river is a mass of flowing water on the earth's surface.

- ✓ Many rivers in Uganda originate from high plateaus and highlands because such areas receive plenty of rainfall which provides water to the rivers.
- ✓ Rivers flow from higher altitude to a low altitude.

### **Types of rivers**

➤ Permanent rivers

These are rivers which flow throughout the year

### **Examples of permanent rivers**



6. Define these terms

a) A river source

b) A river mouth

c) A delta

d) A tributary

e) A flood plain

## Lesson

### Major Rivers in Uganda

#### RIVER NILE

River Nile is the longest river in Uganda, East Africa, Africa and the world.

Its local name is Kiira.

River Nile has its source in Lake Victoria.

River Nile flows through Uganda, Republic of South Sudan, Sudan and Egypt (Nile valley countries).

It begins from Lake Victoria in Uganda and ends in Mediterranean Sea in Egypt.

The Nile flows northwards because the North is on a lower altitude.

#### The sections of river Nile

The Nile has three parts namely:

1. Victoria Nile (between lake Victoria and lake Albert)
2. Albert Nile (between lake Albert and Nimule)
3. White Nile ( from Nimule northwards to Mediterranean Sea)

River Nile pours its water in Mediterranean Sea.

River Nile ends in a Delta.

#### Why does River Nile flow towards northern Uganda?

- (i) Uganda's plateau is tilted towards the north.
- (ii) Northern Uganda is on a lower altitude than southern Uganda.

#### Name the first European to see River Nile

He was John Speke in 1862.

#### Why isn't it correct to say that John Speke discovered the source of River Nile

The native around the river had seen it before him.

#### major waterfalls found on the River Nile in Uganda

- |                     |                   |                    |
|---------------------|-------------------|--------------------|
| 1. Bujagali falls.  | 4. Ripon falls    | 7. Nalubaale falls |
| 2. Karuma falls     | 5. Kalagala falls |                    |
| 3. Murchison falls. | 6. Itanda falls   |                    |

Nalubaale dam and Kiira dam were built along River Nile in Uganda to generate more H.E.P

#### Economic importance of water falls

- (i) They help to generate hydro electricity.
- (ii) They are tourist attraction centre.

#### Hydroelectric power dams found along river Nile

1. Nalubaale power dam



2. Kiira dam
3. Karuma power dam
4. Bujagali power dam

**Some of the power stations found on R. Nile in Uganda are:**

1. Nalubaale power station
2. Bujagali power station
3. Kiira power station

**Uganda exports her hydro electricity to**

- |          |             |           |
|----------|-------------|-----------|
| 1. Kenya | 2. Tanzania | 3. Rwanda |
|----------|-------------|-----------|

**Activity**

1. Name the longest river in Uganda.  
\_\_\_\_\_
2. Name the source of River Nile.  
\_\_\_\_\_
3. Mention any **two** examples of the Nile valley countries.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_
4. Name the part of river Nile between lake Victoria and lake Albert.  
\_\_\_\_\_
5. Why does River Nile flow towards northern Uganda?  
\_\_\_\_\_
6. Name the first European to see River Nile.  
\_\_\_\_\_
7. Why isn't it correct to say that John Speke discovered the source of River Nile?  
\_\_\_\_\_
8. Name any **two** major waterfalls found on the River Nile.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_
9. State any **two** some of the power stations found on R. Nile in Uganda .  
i) \_\_\_\_\_  
ii) \_\_\_\_\_
10. Mention any **two** countries to which Uganda exports hydro electricity  
i) \_\_\_\_\_  
ii) \_\_\_\_\_
11. Give **two** economic importance of water falls to Uganda government.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_

**Lesson**

**The tributaries of River Nile**

- |           |              |
|-----------|--------------|
| a. Atbara | c. Blue Nile |
| b. Achwa  | d. Kafu      |

**Sections of the Nile**

- i) Victoria Nile from Lake Victoria to Lake Albert.
- ii) Albert Nile from Lake Albert to Nimule.
- iii) White Nile outside Uganda

**Reasons why some rivers are not navigable**

1. Some rivers have fast flowing waterfalls.
2. Some rivers have suds (floating vegetation/ Islands) / water weeds.

3. Existence of dams on some rivers.
4. Some rivers have rocks on their floor.
5. Dangerous aquatic animals.
6. Some rivers are shallow
7. Some rivers are narrow

### **Reason why the banks of River Nile are densely populated**

1. Presence of fertile soils for agriculture.
2. Reliable rainfall for agriculture.
3. Presence of dangerous aquatic animals.
4. Some parts of river Nile are shallow and narrow
5. Fishing takes place (presence of employment opportunities.)

### **How River Nile is important to industries of Uganda**

- (i) It helps in the generation of hydro electricity.
- (ii) Provides water for cooling down machines in the industries.
- iii) Provides water to industries which is used as raw material.

### **Activity**

1. Name the **two** tributaries of River Nile.  
 i) \_\_\_\_\_  
 ii) \_\_\_\_\_
2. Give any **two** uses of electricity generated from the fast running water.  
 \_\_\_\_\_  
 \_\_\_\_\_
3. Name the part of river Nile which flow from Lake Victoria to Lake Albert.  
 \_\_\_\_\_  
 \_\_\_\_\_
4. Mention any **two** reasons why some rivers are not navigable.  
 i) \_\_\_\_\_  
 ii) \_\_\_\_\_
5. State any **two** dangers of aquatic animals to human beings  
 \_\_\_\_\_  
 \_\_\_\_\_
6. State **two** reasons why the banks of River Nile are densely populated.  
 i) \_\_\_\_\_  
 ii) \_\_\_\_\_
7. Mention any **two** dangerous aquatic animals which make some rivers not navigable.  
 i) \_\_\_\_\_  
 ii) \_\_\_\_\_
8. How is River Nile important to industries of Uganda?  
 \_\_\_\_\_  
 \_\_\_\_\_

### **Lesson**

#### **Other rivers in Uganda**

##### **River Katonga**

It flows eastwards from Lake George into Lake Victoria

##### **River Kagera**

It flows from Lake Kivu in Rwanda into Lake Victoria.

It forms a natural boundary between Uganda, Tanzania and Rwanda.

It flows from Burundi, Tanzania, Rwanda to Uganda.

##### **River Kafu**

It flows from Lake Albert to Lake Kyoga.

### River Semliki

- ✓ River Semliki flows from Lake Edward and pours its water into Lake Albert.
- ✓ It has a delta and oil deposits.
- ✓ It flows in the western rift valley on the boarder of Democratic Republic of Congo and Uganda.

### River Achwa

River Achwa is the second longest river in Uganda.

It is the main tributary of River Nile in Uganda.

It has two main tributaries River Agago and River pager. It joins river Nile near Nimule in South Sudan.

### Activities carried out on and around rivers.

- |                 |                    |                      |
|-----------------|--------------------|----------------------|
| 1. Fishing.     | 3. Tourism         | 5. Trading.          |
| 2. Crop growing | 4. Transportation. | 6. Industrialization |

### Importance / advantages of rivers

1. They help in generation of Hydro Electric Power.
2. Rivers provide water transport.
3. Rivers help in formation of rainfall.
4. Rivers are homes of aquatic animals.
5. Rivers are sources of fish.
6. Rivers promote tourism
7. Rivers provide water for irrigation, industrial and home use.
8. Some rivers have mineral deposits e.g. R. Semliki and R. Nile have oil.

### How do people misuse rivers

1. By over fishing
2. By fish poisoning
3. Through pouring wastes materials in water bodies.

### ACTIVITY

1. Name the river that forms a natural boundary between Uganda and Rwanda.

\_\_\_\_\_

2. Which river flows from lake Edward to lake Albert?

\_\_\_\_\_

3. Name the river which joins river Nile from Nimule.

\_\_\_\_\_

4. State the main tributary of River Nile in Uganda.

\_\_\_\_\_

5. Mention any **two** activities carried out around lakes and rivers.

i) \_\_\_\_\_

ii) \_\_\_\_\_

6. State any **two** common fishing activities which leads to misuse of rivers.

\_\_\_\_\_

7. Mention any **two** importance of rivers to man.

i) \_\_\_\_\_

ii) \_\_\_\_\_

### LESSON

### Dangers of living near rivers

1. Flooding of the area.
2. Easy spread of water borne diseases
3. Drowning

4. They harbor dangerous aquatic animals
5. They harbour disease vectors.
6. Rivers and lakes hinder road and railway construction.

#### **Problems facing rivers in Uganda**

1. Silting which reduces the depth of water bodies.
2. Overuse of water from lakes and rivers
3. Prolonged drought which lowers the water level.
4. Dumping of wastes into water bodies.
5. Over fishing

#### **ACTIVITY**

1. What causes floods?  
\_\_\_\_\_
2. What are aquatic animals?  
\_\_\_\_\_
3. Mention any **two** examples of aquatic animals.  
\_\_\_\_\_
4. How do people misuse water bodies?  
\_\_\_\_\_
5. Mention any **two** weather related hazards which affects rivers.  
\_\_\_\_\_
6. State **two** dangers of living near rivers.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_
7. Give any **two** problems facing rivers in Uganda  
i) \_\_\_\_\_  
ii) \_\_\_\_\_

#### **LESSON**

##### **Water accidents**

Water accidents are sudden occurrence which can lead to death or injuring of the water navigators.

##### **Causes of water accidents**

1. Water weeds (Hyacinth)
2. Over loading
3. Dangerous water animals
4. Over speeding
5. Strong winds and storms
6. Water vessels in Dangerous Mechanical Conditions (DMCs)
7. Drunkardness
8. Rapids and waterfalls

##### **Solutions to the causes of water accidents**

Water vessels should be loader according to its capacities

Checking water vessels before using them

Using life jackets when sailing in water

Avoiding over speeding in water

#### **Activity**

1. What is water accident?  
\_\_\_\_\_
2. State any **two** causes of water accidents.  
\_\_\_\_\_

- 
- 
3. Mention any **two** dangerous wild animals which can attack and cause water accidents.
  4. How are water weeds important to us?
  5. State any **one** weather hazard which can cause water accidents.
  6. State the importance of a life jacket to a sailor.
  7. State any **two** reasons why accidents are very common along the river Nile.
  8. State any **two** ways of avoiding water accidents.
- 
- 

## **Lesson**

### **The influence of physical features:**

#### **a) On People**

- The windward side of a mountain attracts very many people due to the presence of fertile soils for cultivation, and also receives plenty of rainfall.
- The leeward side of a mountain has very few people because it receives very little rainfall.
- Plains favour pastoralism due to the presence of pasture.
- Road and railway transport is poor in highland areas due to the presence of steep slopes.
- Many people settle around lakes and rivers because such areas receive reliable rainfall and have fertile soils which support crop cultivation.

### **Factors which attract human settlement in;**

#### **i) Plateau areas**

1. Presence of pasture for animals.
2. Agricultural mechanization is easy in such areas.
3. Construction of houses, roads, railways and industries is easy.
4. Natural hazards like floods are not common in these areas.

#### **ii) Highland areas**

1. Presence of fertile soils.
2. Availability of reliable rainfall.

### **Common economic activities carried out in highland areas.**

1. Crop farming
2. Mining
3. Dairy farming

### **Reasons why there are very few people living in higher parts of mountains.**

1. Transport is poor in higher parts of the mountains
2. Highland areas experience very low temperatures which do not favour human settlement.

#### **b) On Plants**

- Areas around lakes and rivers have many plants due to plenty of rainfall received.
- Slopes of mountains have forests due to presence of fertile soils and reliable rainfall received.
- Mountain tops have few plants due to low temperatures and bare rocks.

#### **c) On Animals.**

1. Plains have plenty of grass which attracts wild animals.
2. Water bodies favour aquatic animals.
3. Pastoralism is common on plateau areas due to the presence of pasture for animals.



## ACTIVITY

1. How is weather different from the climate?  
\_\_\_\_\_
2. In which way is climate similar to the weather?  
\_\_\_\_\_
3. What is meteorology?  
\_\_\_\_\_
4. Name the biggest meteorological station in Uganda.  
\_\_\_\_\_
5. Suggest the reason why the biggest weather station is located in the place mentioned above.  
\_\_\_\_\_
6. How is a weather forecast important to a traveler?  
\_\_\_\_\_
7. State any **two** types of weather.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_

## LESSON

### Terms related to the climate

- **Isotherms** are lines drawn on a map to show places with the same temperature.
- **Contours** are lines drawn on a map to show places with the same altitude.
- **Isobars** are lines drawn on a map to show places with the same pressure.
- **Isohyets** are lines drawn on a map to show places with the same rainfall.

### Types and conditions of weather

Type of weather	Condition of weather
Rainy weather	Rainy
Windy weather	Windy
Cloudy weather	Cloudy
Sunny weather	Sunny
Foggy weather	Foggy

## Activity

1. Name the line drawn on a map to show two places with the same altitude.  
\_\_\_\_\_
2. Which weather condition forces us to wear heavy woolen clothes?  
\_\_\_\_\_
3. What term is used to mean the lines drawn on a map to show places with the same rainfall?  
\_\_\_\_\_
4. What is altitude?  
\_\_\_\_\_
5. Mention any **two** physical features identified by their altitude.  
\_\_\_\_\_
6. Mention any **two** conditions of weather.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_

## Lesson

### Elements of weather

These are things which cause atmospheric changes of a given place at a given time.

- |               |                  |                   |
|---------------|------------------|-------------------|
| (i) Rainfall  | (iv) Humidity    | (vii) Temperature |
| (ii) Sunshine | (v) Air pressure |                   |
| (iii) Wind    | (vi) Clouds      |                   |

### Ways people protect themselves from bad weather.

#### Sunny (Too much sunshine)

- (i) By using umbrellas.
- (ii) By using sunglasses.
- (iii) Using hats.
- (v) By wearing light clothes

#### Rainy Weather

- (i) By using umbrellas
- (ii) By using rain coats.
- (iii) By using gumboots.

#### Cold Weather

By wearing heavy clothes

#### Windy Weather

By planting of trees in the compound

## ACTIVITY

1. Mention any **two** elements of weather.

- i) \_\_\_\_\_
- ii) \_\_\_\_\_

2. Mention any **two** weather conditions which requires the use of umbrella.

\_\_\_\_\_

3. How do people manage cold weather in your area?

\_\_\_\_\_

4. State **one** way in which people protect themselves from

(i) much sunshine

- i) \_\_\_\_\_
- ii) \_\_\_\_\_

(ii) rainy weather

- i) \_\_\_\_\_
- ii) \_\_\_\_\_

## SPELLING EXERCISE

1 ..... 2 .....

3 ..... 4 .....

5 ..... 6 .....

7 ..... 8 .....

## LESSON

Give one agricultural activity done in rural areas in a:

#### (a) Wet Season

- |                         |                             |
|-------------------------|-----------------------------|
| (i) Growing crops.      | (iii) Weeding in the garden |
| (ii) Planting of crops. | (iv) Spraying of crops.     |



## (b) Dry season

- (i) Harvesting crops.
- (ii) Land preparation

- (iii) Drying harvested crops
- (iv) Storing of dried crops.

## How climate affects people's way of dressing?

Hot climate requires light clothes while cold climate requires heavy clothes.

## Things that can be done to maintain good climate in an area

- 1. By afforestation/Planting of trees.
- 2. By conserving wetlands.
- 3. By preserving forests.
- 4. Practicing agro forestry
- 5. practicing re afforestation

### Activity

1. how are farmers important in our community?

---

2. Give any **one** agricultural activity done by farmers in a:

(i) wet season

i) 

---

ii) 

---

(ii) dry season

i) 

---

ii) 

---

3. How climate does affect people's way of dressing?

---

4. Suggest **two** reasons why farmers store food crops.

---

5. Why do farmers plant cross in the rainy season?

---

6. What is afforestation?

---

7. State **two** things that can be done to maintain good climate in an area besides afforestation.

i) 

---

ii) 

---

### Lesson

## WEATHER INSTRUMENTS

### Wind vane

It shows direction of wind.

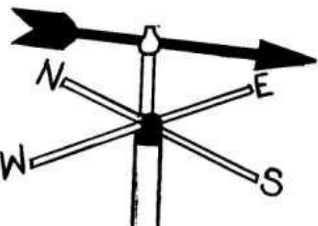
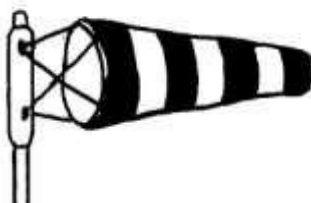
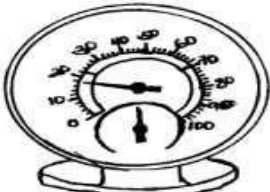
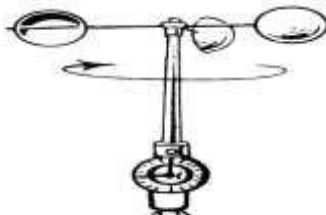
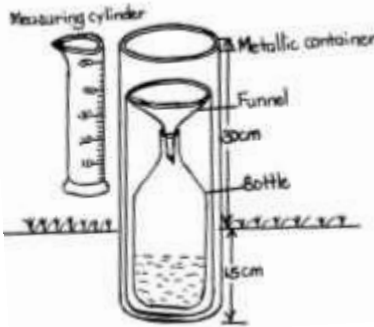
### Why should a wind vane be placed in an open area?


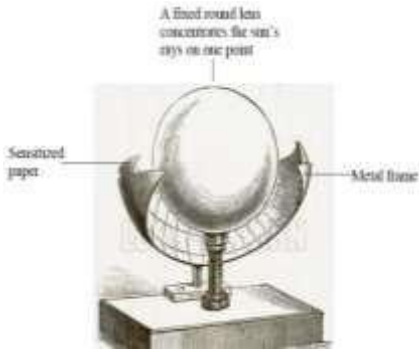
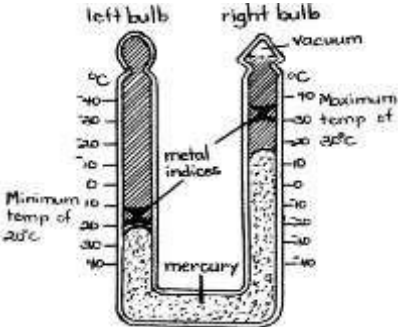
- (i) To show the right direction of wind.
- (ii) To avoid obstruction of the right movement of wind.

N.B. The pointer of a wind vane points or faces where the wind is blowing from.

**If the wind is blowing to western direction, to which direction should the wind vane face?**

Eastern direction

Weather instrument	Importance
 <p>Wind vane / a weather cock</p>	<p>It shows the direction of wind.</p> <p>A wind vane is placed in an open place or on top of buildings to prevent wind obstruction.</p> <p>Note:-An arrow of a wind vane usually points to the direction from which wind is blowing.</p>
 <p>A</p> <p>Windsock</p>	<p>It shows the strength of wind.</p> <p>It's usually found at the airports, air fields and at chemical plants.</p> <p>Note:-A wind sock is not among the instruments of weather found at a weather station.</p>
<p><b>Hygrometer</b></p> 	<p>It measures humidity</p> <p>Humidity is the amount of water vapor in the atmosphere</p>
<p>An Anemometer</p> 	<p>It measures the speed of wind.</p> <p>It has cups which trap wind and rotate as wind blows into them.</p> <p>The speed of wind is measured in kilometers per hour (km/hr.)</p>
<p>A Rain gauge</p> 	<p>It is used to measure the amount of rainfall received in an area.</p> <p>It is always placed at least 30cm above the ground to prevent splashes and flowing water on the ground from entering the rain gauge.</p> <p>It should be placed 15cm below the ground to prevent the evaporation of water collected and to make it firm.</p> <p>It is placed in an open flat place to prevent obstruction of rain drops from entering the funnel in order to take accurate measurements.</p> <p>Importance of different parts of a rain gauge.</p> <p>The funnel-it directs water into the bottle.</p> <p>Water bottle-it collects the amount of rain water received.</p> <p>Measuring cylinder-it is used for measuring the amount of water collected in the bottle.</p> <p>Note:-Rainfall is measured in millimeters in order to know the depth of water into the soil.</p>

<p>A Barometer</p> 	<p>It is used to measure air pressure. Air pressure is measured in millibars. Measuring air pressure enables experts to predict storms.</p>
<p>A Sunshine recorder</p> 	<p>❖ It shows the duration of sunshine in a day.</p>
<p>Six's thermometer</p> 	<p>It measures the highest and lowest temperatures of the day.</p>

### Other weather instruments are:

Ceilometer for measuring the intensity of cloud covers

Seismograph for measuring the intensity of earthquakes

### Activity

1. Why should a wind vane be placed in an open area?

---

2. If the wind is blowing to western direction, to which direction should the wind vane face?

---

3. Define humidity.

---

4. Why is a rain gauge placed in an open flat place?

---

5. Name the instrument used to measure air pressure.

---

6. Of what importance are ceilometers to a weather station?

---

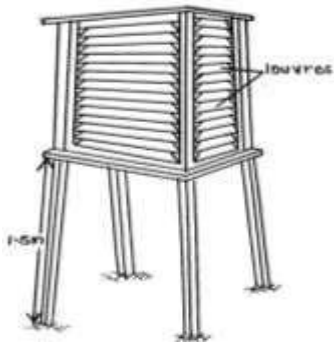
7. Name the instrument used for measuring the intensity of earthquakes

---

## A Stevenson screen

It is a wooden box where delicate weather instruments are kept at a weather station.

### STEVENSON SCREEN.



It protects weather instruments from rainfall and direct heat. The Stevenson screen is made of louvers to allow free air circulation in the box. It is painted white to enable it reflect sunlight. It is raised 1.5m above the ground to keep it free from splash water. It is made of wood to prevent it from absorbing heat.

### What is the use of a Stevenson Screen at a weather station?

1. To protect delicate weather instruments from damage.
2. It is where the recorded weather records are kept.

### Some of the weather instruments kept in a Stevenson screen

- (i) Barometer
- (ii) Six's minimum and maximum thermometer
- (iii) Hygrometer

### Reason why a Stevenson screen is made with louvers

To allow free circulation of air

The Ministry of Water and Environment is responsible for monitoring weather and climate, and giving advice to the public on weather conditions in Uganda.

### Activity

1. What is a Stevenson screen?  
\_\_\_\_\_
2. Why is a Stevenson screen made of louvers?  
\_\_\_\_\_
3. State the main reason why the Stevenson screen is painted white.  
\_\_\_\_\_
4. Why do you think a Stevenson screen is made of wood?  
\_\_\_\_\_
5. What is the use of a Stevenson screen at a weather station?  
\_\_\_\_\_
6. Name any **two** weather instruments kept in a Stevenson screen.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_
7. Which ministry in Uganda is responsible for monitoring weather and climate, and giving advice to the public on weather conditions in Uganda?  
\_\_\_\_\_  
\_\_\_\_\_

## Lesson

### Factors which influence the climate of an area

1. Latitude.
2. Altitude.
3. Nature of vegetation.
4. Human activities.
5. Distance from water bodies
6. Prevailing winds

#### (i) Altitude: The effects of altitude

Altitude is the height above sea level.

It is measured by an instrument called an altimeter.

#### Why do you think Entebbe is cooler than Gulu?

Gulu is on a low altitude than Entebbe.

#### Why do you think Gulu is hotter than Entebbe?

Entebbe is on a high altitude than Gulu.

#### How does the altitude affect climate?

The higher you got the cooler it becomes and the lower you go the hotter it comes.

Temperatures decreases as altitude increases.

#### Why is Kisoro cooler than Kampala?

Kisoro is on a higher altitude than Kampala.

Places like Kisoro, Kabale, Mbale, Mt. Rwenzori are cooler because they are at a higher altitude.

#### (ii) Distance from water bodies

Place near larger water bodies receive a lot of rain.

Winds that blow across large the water body carry a lot of moisture which rise up to form rainfall.

Wind that blows from land towards the sea is dry.

They do not bring more rain.

#### (iii) Latitude (Distance from the Equator)

Places near the equator are hotter than places far away from the equator.

Places near the equator experience high temperature than places far away from the equator hence receiving a lot of rainfall due to high evaporation and transpiration of water bodies and trees.

#### (iv) Human Activities

Places where large forests are planted have their climate modified.

Places where people have cut down trees on a large scale experience dry condition with very little rain.

#### How clearing of natural vegetation affects the area.

1. It reduces chances of rainfall formation.
2. It displaces wild animals that live in it.
3. It leads to soil erosion

#### (v) The Nature of vegetation

- Places that have thick forests receive plenty of rainfall while places with little or no vegetation are very dry.
- The type of rainfall received near large forests and water bodies is convectional rainfall.

### Activity

1. What is altitude?

---

2. Why do you think Gulu is hotter than Entebbe?

---

3. How does the altitude affect climate?

---

4. Why is Kisoro cooler than Kampala?

5. Why are places near larger water bodies receive a lot of rain?  
\_\_\_\_\_
6. State the reason why places near the equator experience high temperature than places far away from the equator.  
\_\_\_\_\_
7. Why are places where deforestation occurred experience dry condition?  
\_\_\_\_\_
8. How do clearing of natural vegetation affects the area?  
\_\_\_\_\_

## Lesson

### Types of rainfall

1. Convictional rainfall
2. Relief/ Orographic rainfall
3. Cyclonic/ frontal rainfall

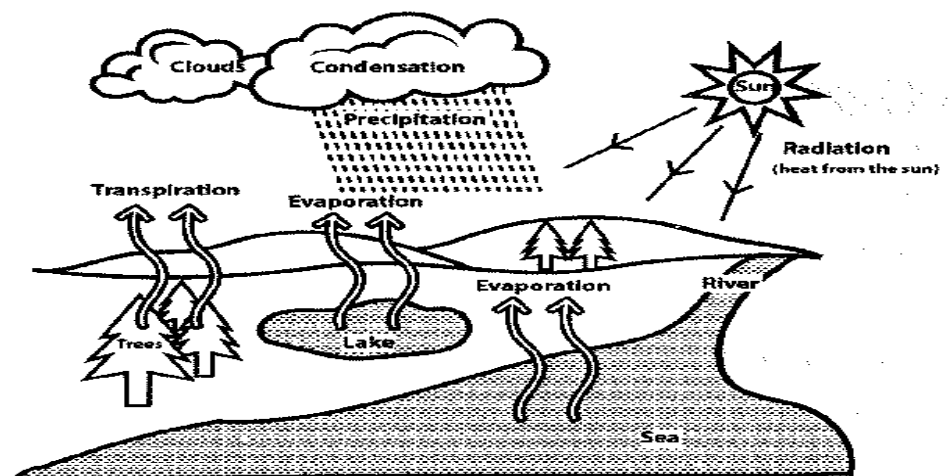
#### a) Convictional rainfall.

Convictional rainfall is the type of rainfall received in the forested areas.

#### Characteristics of convictional rainfall

- It occurs in the afternoon and dawn.
- It occurs with heavy short down pour.
- It is mostly received in the afternoon.
- It is usually accompanied by lightning and thunderstorms.
- It is mostly received in areas that experience a lot of evaporation and transpiration.

#### Formation of convictional rainfall.



#### b) Relief/ orographic rainfall

It is received in hilly or highland area

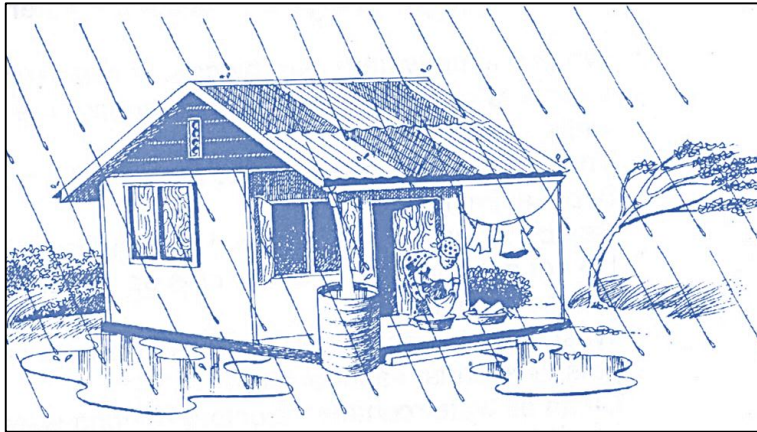
#### c) Cyclonic/ frontal rainfall

It is experienced when two air masses i.e. warm moist air and cool dry air meet and the warm moist air is forced to raise resulting into rain formation.

## ACTIVITY

1. Mention any **two** types of rainfall.
  - i) \_\_\_\_\_
  - ii) \_\_\_\_\_
2. Which type of rainfall is received in the forested areas?  
\_\_\_\_\_
3. State **two** characteristics of rainfall which is received in hilly or highland area.
  - i) \_\_\_\_\_
  - ii) \_\_\_\_\_

4. Below is a diagram of an element of weather. Use it to answer the questions that follow.



5. Name the element of weather above.

6. State **one** weather condition brought by the weather element above.

9. Name the type of rainfall received near large forests and water bodies.

7. State any **two** weather hazards related to the above weather element.

8. Name any **two** districts in Uganda which receive frontal rainfall.

- i) \_\_\_\_\_
- ii) \_\_\_\_\_

### SPELLING EXERCISE

- 1 ..... 2 .....
- 3 ..... 4 .....
- 5 ..... 6 .....
- 7 ..... 8 .....

## LESSON

### Climatic regions of Uganda

**Climatology** is the study of climate.

**Climatologist** is a person who studies about climate.

**There are two main aspects (components) of climate.**

1. Temperature
2. Rainfall

### Types of climate experienced in Uganda

1. Tropical climate.
2. Equatorial climate.
3. Mountain climate.
4. Semi-arid climate.

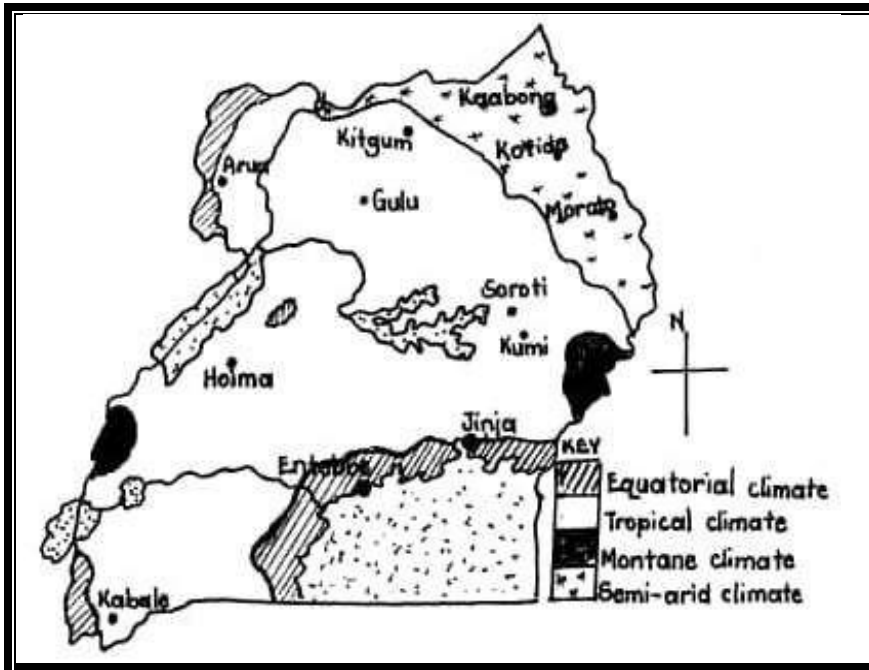
### Climatic regions in Uganda

A climatic region is a large area that experiences the same / similar weather patterns

## Climatic regions in Uganda

1. Equatorial climatic region
2. Tropical climatic region/ Savannah climatic zone
3. Semi-desert climatic region/ savannah climatic zone.
4. Montane climatic region/ mountain climatic zone

**A Map of Uganda Showing The Climatic Regions of Uganda**



### Activity

1. Define climatology.  
\_\_\_\_\_  
\_\_\_\_\_
2. How are climatologists important to our community?  
\_\_\_\_\_
3. Which aspect of climate causes flood?  
\_\_\_\_\_
4. Mention any **two** main components of climate.
  - i) \_\_\_\_\_
  - ii) \_\_\_\_\_
5. Name any **two** types of climate experienced in our country.  
\_\_\_\_\_  
\_\_\_\_\_

### Lesson

#### Tropical Climate

The tropical climate is described as dry and wet.

The largest parts of Uganda experience tropical climate.

#### Why most parts of Uganda receive tropical climate.

- ✓ Uganda lies within the tropics.
- ✓ Tropical climate is experienced between tropic of cancer and tropic of Capricorn.

#### Characteristics of tropical climate

1. Some months of the year are wet while others are dry.
2. Rainfall is commonly received during Equinox months.
3. Temperatures are too hot during dry month
4. Rainfall decreases as one moves far from the equator.



5. Tropical type of climate is hot and wet.

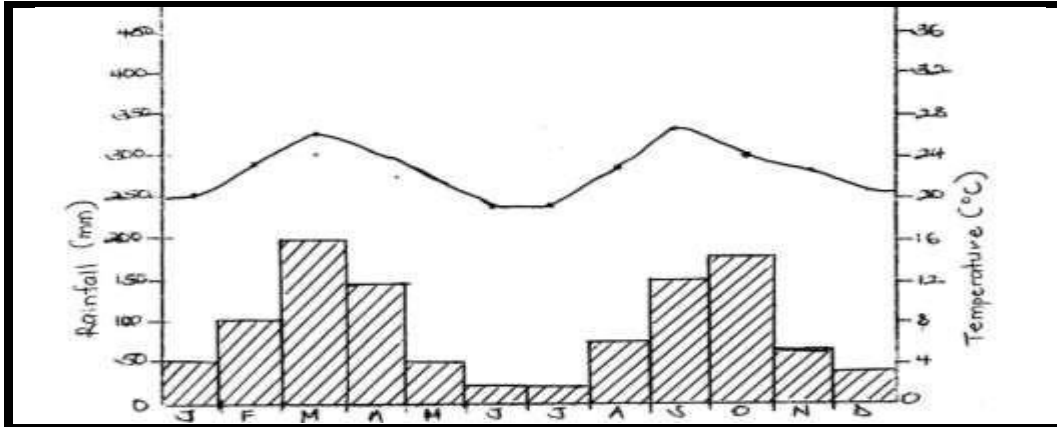
**Districts that experience tropical climate**

- |             |            |              |
|-------------|------------|--------------|
| 1. Mubende. | 4. Kibale. | 7. Sembabule |
| 2. Gulu     | 5. Luwero  |              |
| 3. Soroti   | 6. Kitgum  |              |

**The climatic table showing Tropical type of climate**

Months	J	F	M	A	M	J	J	A	S	O	N	D
Temp. (°C)	20	23	26	24	22	18	19	23	27	24	23	21
Rainfall (mm)	50	110	200	140	50	25	25	75	150	175	60	40

**A climatic graph showing Tropical type of climate**



**Economic activities carried out in Tropical climate regions**

- |                  |                     |                       |
|------------------|---------------------|-----------------------|
| (i) Crop farming | (iv) Fishing.       | (vii) Charcoal making |
| (ii) Tourism.    | (v) Cattle keeping. | (viii) Lumbering      |
| (iii) Mining.    | (vi) Bee keeping    |                       |

**Name the three months with very low rainfall**

- (i) May                      (ii) June                      (iii) July

**Name the months with the highest rainfall**

- (i) March  
(ii) October

**The crops grown in the areas which experience tropical climate**

- |                 |               |
|-----------------|---------------|
| (i) Bananas     | (vii) Cassava |
| (ii) Peas       | (viii) Cotton |
| (iii) Beans     | (ix) Simsim   |
| (iv) Sorghum    | (x) Coffee    |
| (v) Millet      |               |
| (vi) Groundnuts |               |

**Activity**

- Why is tropical climate described as dry and wet?  
\_\_\_\_\_
- Why is tropical climate experienced in the most part of Uganda?  
\_\_\_\_\_
- Mention any **two** characteristics of tropical climate.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_
- Mention any **two** districts in Uganda that experience tropical climate.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_
- State **two** economic activities carried out in Tropical climatic regions.  
i) \_\_\_\_\_

ii) \_\_\_\_\_

6. Give any **two** crops grown within the tropical climatic regions.

i) \_\_\_\_\_

ii) \_\_\_\_\_

### Lesson

#### **Equatorial Climate.**

It is the climatic condition experienced along the equatorial regions.

It is referred to as hot and wet throughout the year.

#### **Why equatorial climate is described as hot and wet.**

-It receives high temperature and heavy rainfall.

-Equatorial climate receives an average rainfall of 1500mm – 2000mm

It experiences a temperature range of 25°C and above

#### **Activities carried out in area with equatorial climate.**

1. Farming
2. Tourism
3. Lumbering
4. Mining
5. Crop growing
6. Fishing

## Crops grown in areas which experience Equatorial climate

Oil palm, coffee, tea, cocoa ,bananas, rubber ,sugarcane

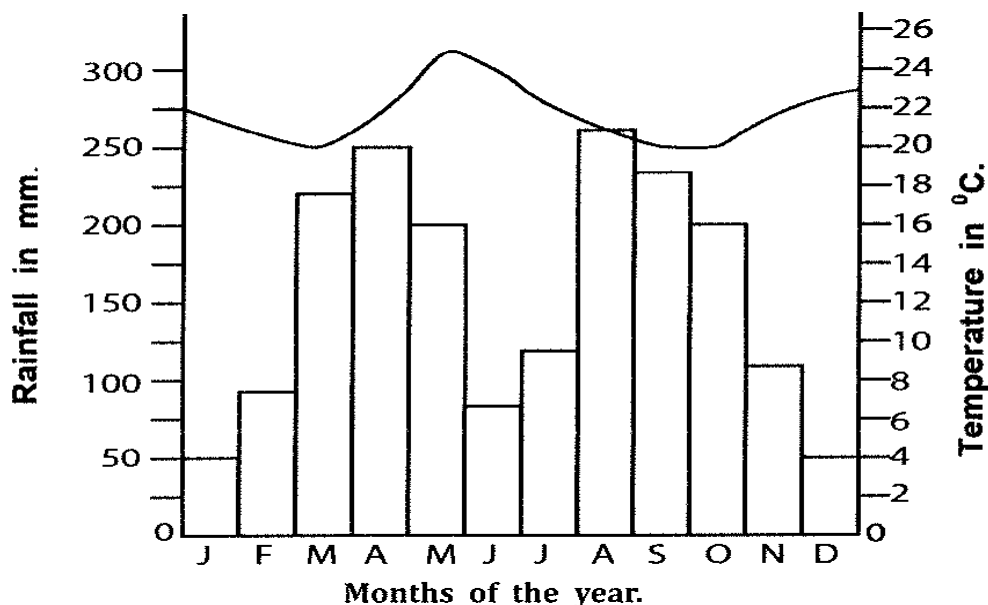
### Characteristics of Equatorial climate

1. It receives high humidity.
2. It receives high temperature during equinox
3. It is hot and wet throughout the year
4. It receives high rainfall.
5. It mostly receive reliable convectional rainfall
6. It has no dry month in a year
7. It is experienced between 5° North and 5° South of the Equator

The table below shows the equatorial climate

Mon	J	F	M	A	M	J	J	A	S	O	N	D
Temp	25	27	35	32	38	37	26	24	25	25	25	35
R/F	150	175	200	190	250	255	175	185	200	220	222	202

1. Which month received the highest amount of rainfall?
2. Which month received the lowest rainfall?
3. What is the relationship between rainfall and temperature?



The higher the rainfall the higher temperature and the lower the rainfall the lower the temperature

### Activity

1. Name the climatic condition experienced along the equatorial regions.  
\_\_\_\_\_
2. Why is equatorial climate described as hot and wet?  
\_\_\_\_\_  
\_\_\_\_\_
3. Mention any **two** economic activities carried out in areas with equatorial climate.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_
4. State **two** examples of crops grown areas of which experience Equatorial climate in Uganda.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_
5. Mention any **two** districts in Uganda which experience equatorial climate.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_
6. State **two** characteristics of Equatorial climate.

- i) \_\_\_\_\_  
 ii) \_\_\_\_\_

## Lesson

### Semi desert climate

This is the climatic region that receives little rainfall

-It is described as hot and dry almost throughout the year.

### Semi desert climate is experienced in these districts of Uganda

1. Moroto
2. Abim
3. Napak
4. Kotido
5. Nakapiripirit
6. Kaabong

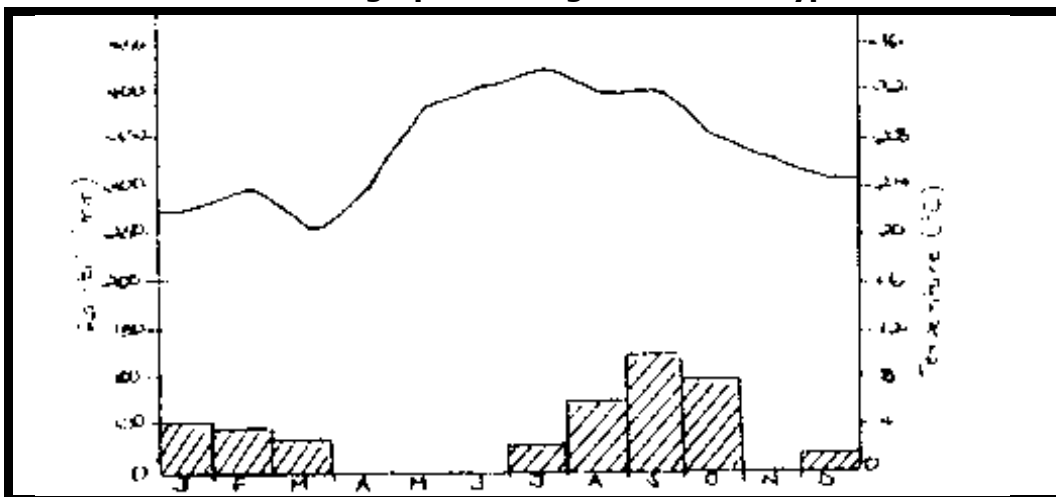
### Characteristics of Semi-desert climate

1. It is hot and dry.
2. There is low humidity.
3. The temperature is high
4. It has very hot days and cold nights.
5. Skies are clear with little cloud cover.
6. It receives low and unreliable rainfall.

### A Climatic table showing Semi-desert type of climate

Months	J	F	M	A	M	J	J	A	S	O	N	D
Temp (°C)	23	24	21	24	31	33	34	32	32	29	27	25
Rainfall (mm)	50	40	28	==	==	==	30	75	120	100	==	20

### A climatic graph showing Semi-desert type of climate



### Economic activities carried out in Semi desert climate.

1. Nomadic pastoralism
2. Tourism
3. Mining

**Pastoralism** is the rearing of cattle for survival.

**Nomadic pastoralism** is the movement of people with their animals from one place to another looking for pasture and water.

### People in Uganda who practice nomadic pastoralism include;

1. Karamojong
2. Jie
3. Pokot

### **Why do the Karamojong move from one place to another ?**

To look for pasture and water for the animals

### **Problems faced by the Karamojong in their activity**

1. Cattle diseases
2. Long drought season
3. Shortage of pasture and water
4. Cattle rustling.

### **Ways in which government can encourage the Karamojong to live settled life.**

1. By building valley dams
2. Educating the Karamojong to keep a manageable number of cattle
3. Encourage the Karamojong practice mixed farming
4. Improving on pasture

### **Why North Eastern Uganda is sparsely populated**

1. It is a semi-arid area with no rainfall most of the year which doesn't support crop growing.
2. There is insecurity

### **How has the government tried to solve the problem of water in the drier parts of Uganda?**

1. By building valley dams
2. By drilling boreholes
3. By using tanks to harvest water

### **Activity**

1. State **two** districts in Karamoja which experienced semi desert climate.
  - i) \_\_\_\_\_
  - ii) \_\_\_\_\_
2. State **two** characteristics of climate experienced in Karamoja sub region.
  - i) \_\_\_\_\_
  - ii) \_\_\_\_\_
3. Mention any **two** economic activities carried out in Semi desert climate.
  - i) \_\_\_\_\_
  - ii) \_\_\_\_\_
4. How is pastoralism different from Nomadic pastoralism?  
\_\_\_\_\_
5. Mention **two** tribes in Uganda who practice nomadic pastoralism.
  - i) \_\_\_\_\_
  - ii) \_\_\_\_\_
6. Why do the Karimojongs move from one place to another?  
\_\_\_\_\_
7. State **two** ways in which government can encourage the Karimojongs to live settled life.
  - i) \_\_\_\_\_
  - ii) \_\_\_\_\_
8. Why is North Eastern Uganda sparsely populated?  
\_\_\_\_\_
9. How has the government tried to solve the problem of water in the drier parts of Uganda?  
\_\_\_\_\_

### **Lesson**

#### **D. Montane/ Mountain climate**

Montane climate is received in highland areas of Uganda.

Temperatures are low and rainfall is high as one goes higher on the mountain.

The wind ward side receives plenty of rainfall because it receives warm moist air.

The lee ward side receives very little rainfall because it receives dry winds.

### Some areas that experience montane climate

1. Areas around mountain Rwenzori
2. Areas around mountain Mufumbiro
3. Areas around mountain Elgon

### Districts in Uganda that experience Montana climate

- (i) Kasese
- (ii) Mbale
- (iii) Kabale
- (iv) Kanungu
- (v) Sironko
- (vi) Kisoro

### Characteristics of Montane climate

1. It has cool temperature due to high altitude.
2. Relief rainfall is mostly received.
3. The wind ward side receives more rainfall than the lee ward side.

### Economic activities commonly carried out in montane climate.

1. Tourism.
2. Lumbering
3. Crop growing.

#### Activity

1. What type of climate is experienced in mountainous areas?  
\_\_\_\_\_
2. Mention any **two** characteristics of Montana climate.
  - i) \_\_\_\_\_
  - ii) \_\_\_\_\_
3. State any **two** crops grown in Montana climate.
  - i) \_\_\_\_\_
  - ii) \_\_\_\_\_
4. State the reason why:
  - a) wind ward side receives plenty of rainfall.  
\_\_\_\_\_  
\_\_\_\_\_
  - b) lee ward side receives very little rainfall.  
\_\_\_\_\_  
\_\_\_\_\_
5. State any **two** areas in Uganda that experience montane climate.
  - i) \_\_\_\_\_
  - ii) \_\_\_\_\_
6. Mention any **two** districts in Uganda that experience montane climate.
  - i) \_\_\_\_\_
  - ii) \_\_\_\_\_
7. State **two** economic activities commonly carried out in both Montane and semi desert climate.
  - i) \_\_\_\_\_
  - ii) \_\_\_\_\_

#### Lesson

### Factors that influence/ affect climate of Uganda

- |                   |                                      |
|-------------------|--------------------------------------|
| Altitude.         | ❖ Nearness to water bodies/Drainage. |
| Latitude.         | ❖ Wind movement.                     |
| Vegetation cover. | ❖ Human activities                   |

### (i)Altitude

Altitude is the height of the land above the sea level.

#### Temperature reduces with the increase in altitude.

1. The lower parts of a mountain are warmer and have higher temperatures than the higher parts of the mountain.
2. The higher the altitude, the cooler the temperature, and the lower the altitude, the hotter the temperature e.g. Mbale is cooler than Kampala because Mbale is on a higher altitude than Kampala.
3. Areas in high altitude receive more rainfall than areas in lower altitude.

### (ii)Vegetation

- ✦ Places with thick vegetation usually receive plenty of rainfall while those that have scanty vegetation usually receive very little rainfall.

Note:-Vegetation modifies climate of an area by helping in the formation of convectional rainfall through transpiration.

### (iii)Human activities

- ✦ Some human activities affect climate positively while others affect climate of an area negatively.

#### Human activities that affect climate of an area positively

- Afforestation
- Reafforestation
- Agro-forestry

#### Human activities that affect climate of an area negatively

- a) Deforestation
- b) Overgrazing
- c) Bush burning
- d) Swamp drainage
- e) Industrialization

#### Activity

1. What is altitude?

\_\_\_\_\_

2. Give a reason why areas with thick vegetation usually receive heavy rainfall.

\_\_\_\_\_

3. State the main reason why Mbale is cooler than Kampala.

\_\_\_\_\_

4. In which way does vegetation modify climate of an area?

\_\_\_\_\_

5. Mention **two** human activities that affect climate of an area positively.

i) \_\_\_\_\_

ii) \_\_\_\_\_

6. Mention **two** negative human activities that affect climate of an area.

i) \_\_\_\_\_

ii) \_\_\_\_\_

#### Lesson

### Latitude

Latitude is the distance in degrees North or South of the equator

- ✧ Areas which are near the Equator are hotter than those which are far away from the equator.
- ✧ Low latitude areas are areas which are near the equator, and are usually very hot.
- ✧ High latitude areas are areas which are far away from the Equator and are usually cool.
- ✧ Areas which are far away from the Equator are usually very cool because they receive slanting sun rays which travel a very long distance to the earth.

**Note;**

1. Most parts of Uganda are always hot because the sun is overhead Uganda throughout the year.
2. The Revolution of the earth (in 365days) causes changes in seasons. i.e. wet season and dry season.
3. Tropical region is the area of land lying between the Tropic of cancer and Tropic of Capricorn.
4. **Equinox** is the time of the year when the sun is overhead the equator.
5. The days and nights are always equal whenever the sun is overhead the equator.
6. Very high temperatures are experienced around equinoxes.
7. **Solstice** is the time of the year when the sun is overhead the tropics.

**(v) Nearness to water bodies (Drainage)**

- ✓ Areas near large water bodies usually receive more rainfall than those which are far away from large water bodies.
- ✓ Areas near large water bodies usually receive convectional rainfall.
- ✓ Winds that blow over large water bodies pick a lot of moisture which rises and condenses to form convectional rainfall.
- ✓ Water bodies modify climate by helping in the formation of convectional rainfall through evaporation.

**Activity**

7. Why are areas which are near the Equator hotter than those which are far away from the equator?

---

8. State the main reason why most parts of Uganda are always hot.

---

9. What causes changes in seasons?

---

10. Name the area of land lying between the Tropic of cancer and Tropic of Capricorn.

---

11. How is the equinox different from solstice?

---

**(vi) Prevailing winds**

❖ Areas that receive warm moist air receive plenty of rainfall while those that receive dry winds usually receive plenty of rainfall.

**BREEZES**

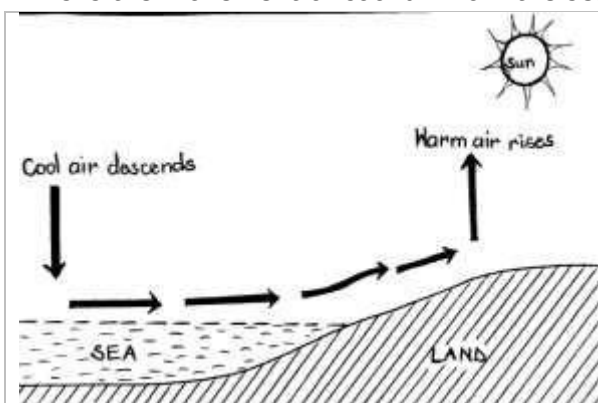
A breeze is the movement of air from a cool region to a warm region.

**Types of breezes**

- Sea breeze
- Land breeze

**(i) Sea breeze**

This is the movement of cool air from the sea towards land.



It takes place during the day.

During the day, the land is heated faster than water bodies.

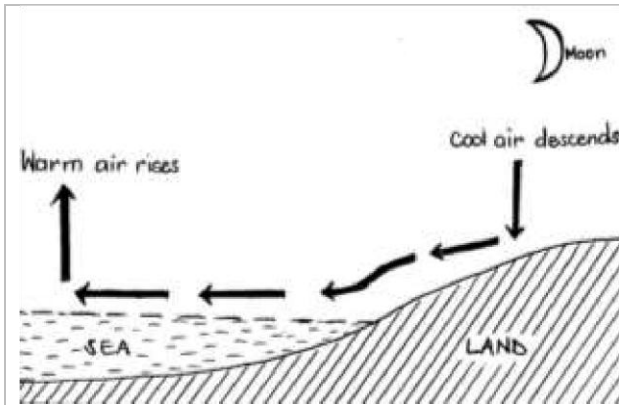
The warm air on land rises and cold air from the sea moves towards land to replace it.

NB:-Sea breezes help in formation of convectional rainfall.



## (ii) Land breeze

This is the movement of cold air from land towards the sea.  
It takes place during the night.



- ✓ At night, the land cools faster than the sea.
- ✓ The warm air from the sea where pressure is low rises and the cooler air blows from land towards the sea to replace it.

### Activity

1. Define the word "breeze"

---

---

2. How is a sea breeze different from land breeze?

---

---

3. Name the type of rainfall formed as a result of Sea breeze.

---

---

4. What is land breeze?

---

---

### Lesson

#### The influence of climate on human activities

a) Semi-desert climatic region (Dry areas)

##### Economic activities commonly carried out in Semi desert climate.

1. Pastoralism.
2. Tourism.
3. Crop cultivation.

##### The influence of Semi-arid climate on human activities

1. People grow crops by irrigation.
2. People grow fast maturing crops like maize, beans, millet, sorghum etc. since their area receives short rainy seasons.
3. People build simple huts.
4. Pastoralism is mostly favoured by the presence of a large vacant land.

##### Problems faced by people living in semi-desert climatic region.

1. High temperatures during day time.
2. Shortage of water.
3. Poor transport.
4. Shortage of pasture for animals.

##### Solutions to the problems faced by people living in desert areas.

1. By digging valley dams to store water.
2. By practicing irrigation farming to increase food supply.
3. By growing drought-resistant crops.
4. By growing fast maturing crops.
5. By painting houses with white in order to reflect sunlight.
6. By dressing in light white clothes to reduce heat during day.

## ACTIVITY

1. Mention any **two** economic activities commonly carried out in semi desert climate.

- i) \_\_\_\_\_
- ii) \_\_\_\_\_

2. How can crop growing be made successful in the semi-arid climate?

\_\_\_\_\_

3. Why do people in semi-arid climate grow fast maturing crops?

\_\_\_\_\_

4. Mention any **two** problems faced by people living in semi-desert region.

- i) \_\_\_\_\_
- ii) \_\_\_\_\_

5. Mention any **two** possible solutions to the problems faced by people living in desert areas.

- i) \_\_\_\_\_
- ii) \_\_\_\_\_

## LESSON

### **b)Equatorial and Tropical climatic region (Wet areas).**

#### **Economic activities carried out in Equatorial and Tropical climate.**

- 1. Tourism.
- 2. Lumbering
- 3. Crop growing.

#### **The influence of Equatorial and Tropical climate on human activities**

- 1. Lumbering is done in the tropical rain forests.
- 2. Tourism is favoured by the plenty of animals.
- 3. Perennial crops are usually grown due to plenty of rainfall receive e.g. coffee, oil palm, bananas, tea etc.
- 4. People wear thick clothes to provide warmth during rainy and windy weather.
- 5. People keep a variety of animals due to presence of pasture for animals.
- 6. Houses are built with slanting roofs to allow easy flow of rain water off the roofs.

#### **Problems faced by people living in Equatorial and Tropical regions.**

- 1. Floods
- 2. Attacks from wild animals
- 3. Poor ground transport.
- 4. Presence of many disease vectors like tsetse flies, mosquitoes etc.

#### **Possible solutions to the problems faced by people living in equatorial and tropical climatic region**

- 1. By building houses with slanting roofs.
- 2. By wearing rain coats and gum boots to safeguard against rainy weather.
- 3. By creating more wildlife conservation areas.

## Activity

6. Why do people in equatorial and tropical climate wear thick clothes?

\_\_\_\_\_

7. State **two** reasons why people in equatorial and tropical climate build houses with slanting roofs.

- i) \_\_\_\_\_
- ii) \_\_\_\_\_

8. Mention any **two** problems faced by people living in equatorial and tropical regions.

- i) \_\_\_\_\_
- ii) \_\_\_\_\_

9. State any **two** possible solutions to the problems faced by people living in equatorial and tropical climatic region

- i) \_\_\_\_\_

ii) \_\_\_\_\_

### c) Montane climate

#### Economic activities commonly carried out in montane climate.

1. Tourism.
2. Crop growing.
3. Lumbering

#### The influence of the montane climate on people

1. People build houses with slanting roofs.
2. People rear donkeys for use as means of transport.
3. People wear thick clothes to protect their bodies from much coldness.
4. Thick forests promote lumbering in this climatic region.
5. People grow perennial crops due to plenty of rainfall received.

#### Problems faced by people living in montane climatic region.

1. Poor transport network.
2. Severe soil erosion
3. Landslides.
4. Much coldness

#### Possible solutions to the problems faced by people living in montane climatic region

1. By building winding roads.
2. By keeping donkeys for transport.
3. By wearing thick clothes to overcome much coldness.
4. By planting trees to reduce soil erosion and landslides.

NB: -Plant roots control landslides in highland areas by holding the soil particles firmly.

#### Activity

1. Mention any **two** economic activities carried out in montane climate.

i) \_\_\_\_\_

ii) \_\_\_\_\_

2. How do people living in montane climatic regions protect their bodies from much coldness?

\_\_\_\_\_

\_\_\_\_\_

3. Why do people living in montane climatic region grow perennial crops?

\_\_\_\_\_

\_\_\_\_\_

4. State **two** problems faced by people living in montane climatic region.

i) \_\_\_\_\_

ii) \_\_\_\_\_

5. State **two** possible solutions to the problems faced by people living in montane climatic region.

i) \_\_\_\_\_

ii) \_\_\_\_\_

6. How do plant roots control landslides in highland areas?

\_\_\_\_\_

\_\_\_\_\_

#### Lesson

### ECONOMIC ACTIVITIES DONE IN UGANDA

#### Farming in Uganda

Farming is the growing of crops and rearing of animals.

It is also called agriculture.

People who grow crops and rear animals are called farmers/ agriculturalists.

#### Factors that have promoted farming in Uganda

1. Presence of fertile soils.
2. Presence of reliable rainfall.
3. Availability of ready market for agricultural produce.

4. Improved transport and communication network.
5. Political stability in an area.
6. Availability of ready market for agricultural produce.
7. Presence of large labour force.

### **Importance of farming**

1. It is a source of food to people.
2. It is a source of raw materials for agro based industries.
3. It has promoted the development of roads and railways.
4. It is a source of employment to people.
5. It is a source of revenue to the government.

### **Agro based industries**

Agro based industries are industries which use agricultural products as their raw materials.

### **Examples of agro based industries**

Ginneries which deals in cotton

Food processing which deals in food

### **Needs of farmers**

Seeds, tools, transport, capital, labour, fertile soils, fertilizers, good climate, ready markets, security

### **Activity**

1. What is agriculture?  
\_\_\_\_\_
2. What term is used to mean the industries which use agricultural produces as raw materials?  
\_\_\_\_\_
3. Who are farmers?  
\_\_\_\_\_
4. State any **two** needs of farmers  
\_\_\_\_\_
5. Why do farmers need ready markets for their produces?  
\_\_\_\_\_
6. State any **two** factors that promote farming in Uganda.  
\_\_\_\_\_
7. Why are ginneries called agro based industries?  
\_\_\_\_\_
8. Mention any **two** groups of people employed by farming.  
\_\_\_\_\_
9. Give any **two** importance of growing crops to the farmers.  
\_\_\_\_\_
10. Name any **two** examples of domestic animals reared by the farmers.  
\_\_\_\_\_

**Types of farming**

1. Arable farming (Crop farming).
2. Livestock farming

**Arable farming**

Arable farming is the growing of crops. Crop farming can be for subsistence or commercial purposes.

**Systems of crop farming**

1. Subsistence farming.
2. Plantation farming.

**SUBSISTENCE FARMING**

This is the growing of crops and rearing of animals mainly for home use and the surplus is sold.

It is the commonest system of farming practiced in Uganda. This is because subsistence farming is very cheap to practice.

In this system of crop growing, annual crops are mainly grown e.g. Beans, maize, cassava, peas, Irish potatoes etc.

**Advantages of subsistence farming**

1. It is cheap to practice.
2. It requires simple tools.
3. It does not require a large piece of land.
4. It requires less labour force.
5. It promotes food security.
6. It does not require much capital.

**Disadvantages of subsistence farming**

1. A farmer earns less income.
2. It employs few people
3. It provides less raw materials
4. It leads to low productivity.
5. It does not encourage economic development.

**Activity**

1. State the commonest system of farming practiced in Uganda.

---

2. Give a reason to support your answer above.

---

3. Mention any **two** advantages of subsistence farming.

---

4. State **two** disadvantages of subsistence farming.

---

**PLANTATION FARMING**

This is the growing of one perennial crop on a large scale.

Plantation farming is practiced by very few people in Uganda because it is very expensive to practice.

Under plantation farming, perennial crops are mostly grown e.g. coffee, tea, cocoa, oil palm etc.

**Advantages of plantation farming**

1. It is a source of employment to people.
2. It is a source of raw materials for agro based industries.
3. It is a source of income to the government through taxing plantation owners.
4. It promotes the development of roads.

Agro-based industries are industries which use agricultural produce as their raw materials.

### **Disadvantages of plantation farming**

1. It is very expensive to carry out.
2. It requires a large piece of land.
3. Crops can easily be affected by drought.
4. Pests and diseases can easily spread from one crop to another.
5. It leads to soil exhaustion.

### **Examples of plantation crops**

- |              |            |            |
|--------------|------------|------------|
| 1. Tea.      | 4. Coffee. | 7. Cloves. |
| 2. Sugarcane | 5. Cocoa.  | 8. Cotton. |
| 3. Oil palm  | 6. Sisal   |            |

### **Activity**

1. What is plantation farming?  
\_\_\_\_\_
2. What type of crops is majorly grown under plantation farming?  
\_\_\_\_\_
3. State any **two** advantages of plantation farming.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_
4. Mention **two** disadvantages of plantation farming.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_
5. Give any **two** examples of plantation crops.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_

### **Lesson**

#### **TEA**

Tea is a beverage crop.

#### **Examples of plantations for tea found in Uganda**

1. Kasaku tea plantation.
2. Igara tea plantation.
3. Nakigala tea plantation.

#### **Tea growing districts in Uganda**

1. Mukono.
2. Rukungiri.
3. Kabarole.
4. Bushenyi.
5. Mubende.

#### **Conditions for growing tea**

1. Warm temperatures.
2. Reliable rainfall.
3. Acidic soils.

### **Activity**

6. Mention any **two** examples of plantations for tea.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_
7. What are agro-based industries?  
\_\_\_\_\_  
\_\_\_\_\_
8. Mention any **two** examples of agro based industries.  
i) \_\_\_\_\_

- ii) \_\_\_\_\_
9. Write down any **two** tea growing districts in Uganda.
- i) \_\_\_\_\_
- ii) \_\_\_\_\_

## Lesson

### COFFEE

It is a beverage crop.

It contains caffeine.

#### Types of coffee

**There are three types of coffee namely:**

- a) Arabica coffee (grown in highlands).
- b) Robusta coffee (grown in low lands).
- c) Clonal coffee (improved Robusta).

#### Advantages of growing clonal coffee over other types of coffee

1. It is more resistant to diseases than other types.
2. It matures faster than other types.
3. It gives more yields than other types of coffee.

#### Factors that favour the growing of Arabica coffee on the slopes of mountain Elgon

- a) Presence of deep volcanic fertile soils.
- b) Presence of heavy rainfall received.

Coffee is harvested by hand picking of berries.

Arabica coffee is mainly grown by the Bagishu on the slopes of mountain Elgon and the Bakonzo on the slopes of mountain Rwenzori.

### SUGARCANE

Sugarcane stems are crushed to get juice which makes sugar crystals.

#### Sugarcane plantations in Uganda

1. Kakira sugarcane plantation in Jinja.
2. Lugazi sugarcane plantation in Buikwe.
3. Kinyara sugar works in Masindi.
4. Sango bay in Rakai.

### WHEAT

- ✓ It is a cereal crop which requires low temperature and heavy rainfall.
- ✓ Wheat grains provide flour used for baking.

#### Districts in Uganda that grow wheat

1. Kapchorwa.
2. Kisoro.
3. Bundibugyo.

## Activity

1. Mention any **two** examples of beverage crops.

i) \_\_\_\_\_

ii) \_\_\_\_\_

2. State the type of coffee which is:

- a) grown in highlands?

\_\_\_\_\_

- b) grown in low lands?

\_\_\_\_\_

3. Give any **two** advantages of growing clonal coffee over other types of coffee.

- i) \_\_\_\_\_
- ii) \_\_\_\_\_

4. State any **two** factors that favour the growing of arabica coffee on the slopes of mountain Elgon.

- i) \_\_\_\_\_
- ii) \_\_\_\_\_

5. How is coffee harvested?

\_\_\_\_\_

6. Name the tribe in Uganda which grows Arabica coffee on the slopes of Mount Elgon.

\_\_\_\_\_

7. On which mountain sloped do Bakonzo mainly grow Arabica coffee?

\_\_\_\_\_

8. Mention any **two** sugarcane plantations in Uganda.

- i) \_\_\_\_\_
- ii) \_\_\_\_\_

9. In which district is Kakira sugarcane plantation found?

\_\_\_\_\_

10. Name the sugar works found in Masindi district.

\_\_\_\_\_

## **COTTON**

- ✓ It is a fibre crop used in textile industries.
- ✓ It is grown using seeds and harvested by hand picking.
- ✓ It is taken to ginneries to remove seeds and remain with lint.
- ✓ The lint is processed into threads by spinning.
- ✓ Kenneth Borup was a missionary who introduced the fast growing cotton seeds in Uganda in 1903.
- ✓ Sir Hesketh Bell encouraged cotton growing in Uganda.

### **Reasons why the British colonialists encouraged cash crop growing in Uganda.**

- ✓ They wanted to get raw materials for their home industries.
- ✓ They wanted the natives to get income and pay taxes.

The introduction of synthetic fibres e.g. Nylon has reduced the market for cotton hence leading to reduction in cotton production.

Textile industries are industries that use cotton as their raw material e.g. Nyanza Textile Industries Limited (NYTIL)

### **Cotton growing districts in Uganda**

1. Kasese
2. Iganga
3. Kamuli

### **Importance of cotton**

1. It is used for making threads.
2. It is used for making clothes.
3. It is used making cotton wool.
4. Cotton seeds are used to make animal feeds.

### **Problems faced by cotton growers.**

1. Cotton pests and diseases.
2. Harsh climate changes.



3. Fluctuation of cotton prices.
4. Competition from cotton growers.

## Lesson

### Types of farming

#### TOBACCO

- It is majorly grown in West Nile.
- It is used to make cigarettes
- British America Tobacco (BAT) is the body responsible for marketing and processing tobacco.
- The introduction of the tobacco control bill has led to the reduction in tobacco production in West Nile.

#### OIL PALM

Oil palm is mainly grown in Kalangala by BIDCO Oil Company. Oil palm is used to get palm oil.

#### Products got from palm oil.

- |              |                |            |
|--------------|----------------|------------|
| 1. Palm Wine | 3. Cooking Oil | 5. Candles |
| 2. Soap      | 4. Margarine   |            |

#### Factors that favour oil palm growing

1. Presence of heavy rainfall.
2. Presence of high temperature.
3. Well drained fertile soils.

Harvested oil palm nuts are transported to Jinja for processing and Bidco cooking oil, Bidco washing soap and other products are obtained.

## Activity

1. Who introduced the fast growing cotton seeds in Uganda in 1903?  
\_\_\_\_\_
2. Who encouraged cotton growing in Uganda?  
\_\_\_\_\_
3. State **two** reasons why the British colonialists encouraged cash crop growing in Uganda.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_
4. What are textile industries?  
\_\_\_\_\_
5. Write NYTIL in full.  
\_\_\_\_\_
6. Suggest any **two** cotton growing districts in Uganda.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_
7. Mention any **two** importance of cotton.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_
8. State **two** problems faced by cotton growers.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_
9. Name the body responsible for marketing and processing tobacco in Uganda.  
\_\_\_\_\_
10. State the main cause of reduction in tobacco production in West Nile.  
\_\_\_\_\_
11. State the Oil palm leading producing district in Uganda.  
\_\_\_\_\_

## TYPES OF CROPS

- (i) Traditional cash crops.
- (ii) Non-traditional cash crops.

### (i) TRADITIONAL CASH CROPS.

Traditional cash crops are crops which were originally grown for sale.

#### Examples of traditional cash crops

Coffee	Cotton
Tobacco	Tea
Cocoa	Oil palm
Sisal	Rubber

#### Why people are encouraged to grow traditional cash crops.

1. To promote export trade.
2. To get raw materials for industries.

#### Products obtained/ made from different cash crops

Crop	Product(s)
Cotton	•Clothes, cotton wool, threads
Pyrethrum	•Insecticides
Oil palm	•Palm oil used for making cooking oil, soap, margarine.
Tea	•Tea leaves
Tobacco	•Cigarettes
Sun flower	•Cooking oil
Sisal	•Ropes, strings, sacks
coffee	•Coffee powder, gun powder.
Maize	•Maize flour
Rubber	•Latex for making gloves, balls, shoe soles, car tyres,

#### Activity

1. What are traditional cash crops?

\_\_\_\_\_

2. Why is coffee referred to as traditional cash crops?

\_\_\_\_\_

3. Mention any **two** examples of traditional cash crops.

- i) \_\_\_\_\_
- ii) \_\_\_\_\_

4. State **two** reasons why people are encouraged to grow traditional cash crops.

- i) \_\_\_\_\_
- ii) \_\_\_\_\_

5. Mention **two** ways in which the government is encouraging farmers to grow traditional crops.

\_\_\_\_\_

6. State any **two** products got from the oil palms.

\_\_\_\_\_

7. From which plants do we get latex?

\_\_\_\_\_

8. Name the district in Uganda where oil palms is grown in large quantity.

\_\_\_\_\_

9. Name the crop from which we get insecticides.

\_\_\_\_\_

## Lesson

### NON-TRADITIONAL CASH CROPS.

Non-traditional cash crops are crops which were originally grown for food but can now be sold.

**Why the government is encouraging people to grow more non-traditional cash crops.**

- (i) They have a large market.
- (ii) To promote food security in the country.

#### Examples of Non-traditional cash crops

Beans	Banana	Ground nuts
Maize	Yams	Soya beans
Cassava	Rice	Vegetables like cabbage

## Activity

1. What are non-traditional cash crops?  
\_\_\_\_\_
2. Why is the government encouraging people to grow more non-traditional cash crops?  
\_\_\_\_\_
3. Mention any **two** examples of non-traditional cash crops.  
\_\_\_\_\_
4. Which type of crops take a long time to mature and are harvested several times?  
\_\_\_\_\_
5. Mention any **two** examples of such crops.  
\_\_\_\_\_

## Lesson

### PERENNIAL AND ANNUAL CROPS

#### PERENNIAL CROPS

These are crops which take a long time to mature and are harvested several times.

Most of the traditional cash crops are perennial.

#### Examples of perennial crops

- |             |                  |                |
|-------------|------------------|----------------|
| (i) Coffee  | (iv) Tea         | (vii) Oil palm |
| (ii) Cocoa  | (v) Mango plants |                |
| (iii) Sisal | (vi) Rubber      |                |

#### ANNUAL CROPS

These are crops which take a short time to mature and are harvested once.

#### Examples of annual crops

Maize	Cotton	Sorghum
Beans	Tobacco	Cassava
Rice	Millet	Peas

## ACTIVITY

1. What are perennial crops?  
\_\_\_\_\_
2. State any **two** characteristics of perennial crops.  
\_\_\_\_\_
3. Mention any **two** examples of perennial crops.  
\_\_\_\_\_
4. Why is sisal referred to as perennial crops? \_\_\_\_\_

Cash crops? \_\_\_\_\_

5. What are annual crops?

\_\_\_\_\_

6. State any **two** characteristics of annual crops.

\_\_\_\_\_

7. Mention any **two** examples of annual crops grown in Uganda.

\_\_\_\_\_

## LESSON

### METHODS OF FARMING IN UGANDA

#### Irrigation farming in Uganda

- ✓ Irrigation is the artificial supplying of water on land to support plant growth.
- ✓ Irrigation farming is the system of crop growing in which land is supplied with water by human means to support crop growth.
- ✓ Irrigation scheme is an area of land which is supplied with water by human means to support crop growth.
- ✓ Irrigation schemes are mostly set up in areas that do not receive reliable rainfall (dry areas).
- ✓ These areas must be having reliable permanent sources of water.
- ✓ Irrigation farming is not well developed in Northeastern Uganda because the area has few reliable permanent sources of water.

#### Irrigation schemes in Uganda.

1. Doho irrigation scheme for rice
2. Tilda (Kibimba) irrigation scheme.
3. Kiige irrigation scheme for citrus fruits.
4. Ongom irrigation scheme in Lira for citrus fruits.
5. Olweny swamp irrigation scheme in Lira for rice
6. Nsimbe and Rosebud irrigation scheme for flowers.

#### Common methods of Irrigation

1. Gravity flow method
2. Canal irrigation
3. Overhead sprinkler method

Irrigation scheme	Source of water	District	Crops grown
Doho	R. Manafwa	Butaleja	Rice.
Mubuku	R. Mubuku And R. Sebwe	Kasese	Vegetables, maize
Tilda (Kibimba)	R. Mpologoma	Bugiri	Rice
Sango Bay	L. Victoria	Rakai	Sugarcanes and Maize
Kakira	L. Victoria	Jinja	Sugarcanes
Lugazi	L. Victoria	Buikwe	Sugarcanes
Pabo	R. Achwa	Kitgum	Rice
Kiige	L. Nabigaga	Kamuli	Citrus fruits
Agoro	R. Agago	Lamwo	Tomatoes, Okra, Maize

Nsimbe irrigation scheme is known for floriculture.

Floriculture is the growing of flowers for sale. People who grow flowers for sale are called **florists**.

#### Advantages of Irrigation farming

1. Crops are grown at any time of the year.
2. It increases crop yields
3. It promotes food security in the country.
4. Irrigation farming helps to put idle dry land into use.
5. Crops grow well without being affected by sunshine.

### Disadvantages of Irrigation farming

1. It is very expensive to practice.
2. It is not possible where there is no reliable source of water.
3. It leads to soil leaching.

Note:-Leaching is the sinking of soil nutrients to deeper layers where plant roots cannot reach.

### Challenges facing irrigation farming

1. Prolonged drought
2. Shortage of capital
3. Labour shortage
4. Low level of technology
5. Silting
6. Crop pests and diseases

### Activity

1. What is irrigation farming?  
\_\_\_\_\_  
\_\_\_\_\_
2. Name the irrigation scheme known for floriculture.  
\_\_\_\_\_  
\_\_\_\_\_
3. Name the system of crop growing in which land is supplied with water by human means to support crop growth.  
\_\_\_\_\_  
\_\_\_\_\_
4. Why is irrigation farming not well developed in North Eastern Uganda?  
\_\_\_\_\_
5. State **two** commonest methods of Irrigation.
  - i) \_\_\_\_\_
  - ii) \_\_\_\_\_
6. In which district is Sango Bay irrigation scheme found?  
\_\_\_\_\_  
\_\_\_\_\_
7. Mention any **two** advantages of Irrigation farming.
  - i) \_\_\_\_\_
  - ii) \_\_\_\_\_
8. State **two** disadvantages of Irrigation farming.
  - i) \_\_\_\_\_
  - ii) \_\_\_\_\_

### Lesson

#### Ways of caring for crops in the garden.

1. By weeding them.
2. By thinning.
3. By pruning them.
4. By watering the crops.

#### Problems faced by farmers.

1. Shortage of funds/ limited capital.
2. Prolonged drought.
3. Outbreak of crop pests and diseases.
4. Limited market for farm produce.
5. Poor transport network.
6. Political instability in some parts of the country.
7. Shortage of land for crop growing in some areas e.g. in towns.
8. Changes in prices/unstable prices for agricultural produce.
9. Rural-urban migration which reduces labour force on farms in rural areas.

## Possible solutions to the problems affecting agricultural development in Uganda

1. By giving soft loans to farmers.
2. By spraying the crops with insecticides.
3. By teaching farmers better farming methods.
4. The government should set minimum prices for crop products.
5. By building better roads in the country.
6. By encouraging the use of irrigation farming.

Note:

- The government introduced developmental programmes such as National Agricultural Advisory Services (NAADs) and Operation wealth creation to help farmers to improve their lives.
- NAADs are working under the Ministry of Agriculture, Animal industry and Fisheries.
- The government also set up the National Agricultural Research Organization (NARO) to carry out research on how to improve farming activities.

### Activity

1. Suggest **two** ways of caring for crops in the garden.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_
2. Mention any **two** factors that have promoted farming in Uganda.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_
3. State **two** importance of agriculture.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_
4. Suggest **two** problems faced by farmers in Uganda.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_
5. How is a prolonged drought a problem to farmers?  
\_\_\_\_\_  
\_\_\_\_\_
6. Suggest **two** possible solutions to the problems affecting agricultural development in Uganda.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_
7. Mention any **two** developmental programmes introduced by the government to develop agriculture.  
\_\_\_\_\_  
\_\_\_\_\_
8. Under the Ministry in Uganda is agriculture?  
\_\_\_\_\_  
\_\_\_\_\_
9. Name the organization set to carry out research on how to improve farming activities in Uganda.  
\_\_\_\_\_  
\_\_\_\_\_

### LESSON

#### Agricultural mechanization

This is the use of machines in growing of crops.

#### Examples of machines used in crop growing

Tractors, maize harvesters, seed drills, combine harvesters

Agricultural mechanization is the suitable method of farming in flat land areas because of its gentility but a disadvantaged in mountainous areas due to the steep slopes.

#### Advantages of Agricultural mechanization

1. It saves times
2. It needs less labour force
3. It is very quick

4. A lot of work is done within small time

#### **Disadvantages of agricultural mechanization**

1. It is very expensive
2. It causes unemployment
3. It is very difficult to operate machines in mountainous areas
4. It requires large piece of land

#### **ACTIVITY**

1. **What** is agricultural mechanization?  
\_\_\_\_\_  
\_\_\_\_\_
2. Mention any **two** examples of machines used in crop growing.  
\_\_\_\_\_  
\_\_\_\_\_
3. State the reason why agricultural mechanization is impossible in Kasese.  
\_\_\_\_\_  
\_\_\_\_\_
4. State any **two** advantages of agricultural mechanization  
\_\_\_\_\_  
\_\_\_\_\_
5. Mention any **two** reasons why most farmers in Uganda do not use agricultural mechanization  
\_\_\_\_\_  
\_\_\_\_\_

#### **LESSON**

##### **MIXED FARMING**

Mixed farming is the growing of crops and rearing of animals on the same piece of land.

##### **Advantages of mixed farming**

1. Farmers get double income.
2. The farmer can get manure for his crops from animals.
3. Animals can easily depend on crops for food.
4. A farmer gets a balanced diet.

##### **Disadvantages of mixed farming**

1. It is expensive to start and manage.
2. It requires skilled labour.
3. It requires large capital
4. Animals can easily escape and destroy the crops.
5. It requires a large piece of land.

#### **Activity**

1. Define Mixed farming.  
\_\_\_\_\_  
\_\_\_\_\_
2. Write down any **two** advantages of mixed farming.  
\_\_\_\_\_  
\_\_\_\_\_
3. Mention any **two** things which make mixed farming very expensive.  
\_\_\_\_\_  
\_\_\_\_\_
4. State any **two** disadvantages of mixed farming.  
\_\_\_\_\_  
\_\_\_\_\_

## Lesson

### Livestock farming in Uganda

Livestock is the rearing of cattle on a large scale.

Livestock farming is also called pastoralism.

### Systems of livestock farming

- ✚ Dairy farming.      ❖ Nomadic pastoralism.      ❖ Cattle ranching.

### DAIRY FARMING

Dairy farming is the rearing of cattle on a large scale mainly for milk production.

Cows are mainly reared in this system of pastoralism.

It is commonly carried out in the cool mountainous areas.

Dairy farms in Uganda are commonly found in Kisoro and Kabale.

### Conditions which favours setting up dairy farms

- |                            |                       |
|----------------------------|-----------------------|
| 1. Availability of markets | 5. Storage facilities |
| 2. Veterinary services     | 6. Security services  |
| 3. Cool temperature        | 7. Presence of water  |
| 4. Presence of pasture     | 8. Labour force       |

### Products from a dairy farm

- |                     |                 |           |
|---------------------|-----------------|-----------|
| a) Milk.            | c) Meat (beef). | e) Manure |
| b) Skins and hides. | d) Hooves       |           |

### Examples of milk products

- |             |               |
|-------------|---------------|
| 1. Cheese.  | 3. Ice cream. |
| 2. Yoghurt. | 4. Ghee.      |

## Activity

1. What is livestock farming?

---

---

2. State **two** systems of livestock farming.

- i) \_\_\_\_\_  
ii) \_\_\_\_\_

3. Define dairy farming.

---

---

4. Mention any **two** conditions which favours setting up dairy farms.

---

---

5. Name the climatic area which favours dairy farming.

---

---

6. Why are cows mainly reared in dairy farming?

---

---

7. Suggest **two** products got from a dairy farm.

- i) \_\_\_\_\_  
ii) \_\_\_\_\_

8. State any **two** milk products you know.

- i) \_\_\_\_\_  
ii) \_\_\_\_\_

## Lesson

### RANCHING

Ranching is the rearing of cattle on a large scale mainly for beef production.

Bulls are mainly reared in this system of livestock farming.



### Products got from ranches

- |              |            |                    |
|--------------|------------|--------------------|
| 1. Horn tips | 3. Hooves. | 5. Skins and hides |
| 2. Beef.     | 4. Manure  |                    |

### Examples of ranches in Uganda

- |                                   |                               |                            |
|-----------------------------------|-------------------------------|----------------------------|
| 1. Kisozi ranch (Gomba district). | 4. Zziwa ranch in Nakasongola | 6. Nyabushozi in Kiruhura. |
| 2. Singo ranch                    | 5. Kabula ranch in Sembabule. | 7. Buruli in Nakasongola.  |
| 3. Kitangala                      |                               |                            |

### Activity

1. What is ranching?

---

2. State any **two** characteristics of ranching.

---

3. State the main purpose of carrying out ranching.

---

4. Mention any **two** examples of products got from the ranches.

---

5. How are skins and hides important to the leather industries?

---

6. Why are bulls mainly reared in ranches?

---

7. Give any **two** examples of ranches in Uganda.

---

### Lesson

#### NOMADIC PASTORALISM

- ✓ Nomadic pastoralism is the system of animal rearing where farmers move with their animals from one place to another in search for pasture and water.
- ✓ It is mainly carried out in semi-arid areas.
- ✓ Nomadism is commonly practiced by Karimojongs in the North Eastern Uganda.

#### Examples of pastoral tribes in Uganda

1. Karimojong.
2. Bahima.

#### Districts where nomadic pastoralism is practiced

- |                     |                     |                            |
|---------------------|---------------------|----------------------------|
| 1. Moroto district. | 2. Kotido district. | 3. Nakapiripirit district. |
|---------------------|---------------------|----------------------------|

#### Causes of pastoralism

*These refers to reasons why pastoralists move from one place to another.*

1. To look for pasture for their animals.
2. To look for water for their animals.
3. To break the lifecycle of disease vectors.
4. To promote the culture of herding cattle

#### Disadvantages of pastoralism

1. It encourages cattle rustling.
2. It speeds up the spread of diseases
3. It encourages the breeding of unwanted animal species
4. Animals can easily destroy crops.

#### Possible solutions to the problems facing pastoralists in Uganda

1. Disarming cattle rustlers.
2. Constructing valley dams to provide water for animals.

3. Growing fodder crops to provide food to animals.
4. By extending veterinary services to the pastoral tribes.
5. By encouraging pastoralists to keep a limited number of animals.

### Activity

1. Define nomadic pastoralism.  
\_\_\_\_\_
2. Why are nomadic pastoralism mainly carried out in semi-arid areas?  
\_\_\_\_\_
3. Name the tribe which commonly practiced nomadic pastoralism in North Eastern Uganda.  
\_\_\_\_\_
4. Give any other **two** examples of pastoral tribes in Uganda.  
\_\_\_\_\_
5. State **two** districts where nomadic pastoralism is practiced.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_
6. Suggest **two** reasons why pastoralists move from one place to another.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_

### Lesson

#### **Problems faced by the Karamojong in their activity**

1. Long drought season
2. Cattle rustling.
3. Poor breeds of cattle.
4. Shortage of water for animals.
5. Shortage of pasture.
6. Outbreak of animal diseases.
7. Poor veterinary services

#### **Ways in which government can encourage the Karamojong to live settled life.**

1. By building valley dams to store water
2. Educating the Karamojong to keep a manageable number of cattle
3. Encourage the Karamojong practice mixed farming
4. Improving on pasture
5. Teaching better methods of farming
6. Improving on veterinary services
7. By encouraging tree planting

#### **Why North Eastern Uganda is sparsely populated**

3. It doesn't support crop growing.
4. There is insecurity

#### **How the government tried to solve the problem of water in the drier parts of Uganda**

1. By building valley dams
2. By drilling boreholes
3. By giving tanks to harvest water
4. Encouraging local communities to plant trees to modify climate

### Activity

1. What is cattle rustling?  
\_\_\_\_\_
2. State the main cause of cattle rustling?  
\_\_\_\_\_
3. Name the water reservoir built in Karamoja to store water.  
\_\_\_\_\_
4. Mention any **one** effect of diseases on the animals.  
\_\_\_\_\_
5. Suggest **two** problems faced by the pastoralists in Uganda.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_
6. Give any **two** possible solutions to the problems facing pastoralists in Uganda.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_
7. State any **two** reasons why Karamoja sub region is sparsely populated.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_
8. How has the government tried to solve the problem of water in the drier parts of Uganda?  
i) \_\_\_\_\_  
ii) \_\_\_\_\_

### Lesson

## TOPIC 4: VEGETATION OF UGANDA

### What is Vegetation?

Vegetation is the plant cover of an area.

### Types of vegetation

- i) Natural vegetation
- ii) Planted vegetation

### Differences between planted and natural vegetation

1. Natural vegetation grows on its own while planted vegetation is grown by a man.
2. Natural vegetation has low growth rate unlike planted vegetation
3. Natural vegetation has different plant species while planted vegetation has single species of plants
4. Natural vegetation matures differently while planted vegetation mature at the same time.
5. Natural vegetation provide hardwood while planted vegetation provide soft wood.
6. Planted vegetation are not spaced while natural vegetation are not spaced

### Planted vegetation

### What is planted vegetation?

This is the plant cover of an area that is grown by people.

### Plantation vegetation includes:

1. Crops
2. Forests
3. Planted grass
4. Planted Flowers

### Activity

1. What is vegetation?  
\_\_\_\_\_
2. Mention any **two** types of vegetation.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_
3. State the type of wood got from:  
\_\_\_\_\_

- i) Planted vegetation \_\_\_\_\_
- ii) Natural vegetation \_\_\_\_\_
4. What is planted vegetation?
- \_\_\_\_\_
- \_\_\_\_\_
5. State **two** components of plantation vegetation.
- i) \_\_\_\_\_
- ii) \_\_\_\_\_

## Lesson

### Planted forests

A forest is a group of trees growing together on the same piece of land.

Planted forests are groups of trees that grow by the help of man.

Planted forests are usually planted by man.

### Examples of planted forests found in Uganda

Magamaga forest in Mayuge	Mafuga forest in Rukungiri
Katuugo forest in Nakasongola	Lendu forest in Nebbi ( the largest in Uganda)
Butamira in Jinja	Nyabyeya forest in Masindi
Bugamba in Mbarara, Rwampara.	Agwata forest in Lira
	Rwoho forest in Ntungamo

### Characteristics of planted forests

1. Trees are planted in rows
2. Trees mainly produce soft wood.
3. Trees are well spaced.
4. They mature quickly
5. Trees are of the same species.
6. Trees mature almost at the same time.

### Examples of tree species that commonly grow in planted forests

- |         |            |               |
|---------|------------|---------------|
| 1. Pine | 3. Cypress | 5. Eucalyptus |
| 2. Fir  | 4. Cedar   | 6. Spruce     |

### Uses of some tree species that are commonly planted

1. Ficus tree (Mutuba tree) is used for making bark cloth.
2. Rubber tree provides latex used for making rubber balls, erasers, car tyres, shoe soles, gum boots, gloves, elastic bands etc.
3. Grape tree provides grapes used for making wine.
4. Oil palm provides palm oil used for making cooking oil, margarine, soap, candles etc.
5. Wattle tree provides tannin used for softening leather/ animal skins.
6. Mulberry is used for making drugs e.g quinine

Trees mainly produce soft wood.

### Products commonly obtained from soft wood

Match boxes	Pencils	❖ Toilet papers
Match sticks	Ply wood	❖ Soft boards.
Papers	Wooden rulers	

### Importance of planted vegetation

1. They are a source of income when sold.
2. They conserve vegetation
3. They provide herbal medicines
4. They attract tourists they modify climate
5. They are used to give respect to the dead.

6. Flowers are used to express love.

### Activity

1. Mention any **two** examples of planted forests found in Uganda.

i) \_\_\_\_\_

ii) \_\_\_\_\_

2. State **two** characteristics of planted forests named above.

i) \_\_\_\_\_

ii) \_\_\_\_\_

3. Mention any **two** examples of tree species that grow in planted forests.

i) \_\_\_\_\_

ii) \_\_\_\_\_

4. State the main importance of these tree species:

a) rubber tree \_\_\_\_\_

b) wattle tree \_\_\_\_\_

c) mulberry \_\_\_\_\_

5. State **two** products commonly obtained from soft wood

i) \_\_\_\_\_

ii) \_\_\_\_\_

### Lesson

#### Grasses

Grasses are wild plants with green leaves and stems

#### Examples of grasses

elephant grasses, Napier grasses, spear grass, guinea grass, lemon grass, rat grass, star grass, couch grass

#### Importance of grasses

1. Grasses are animal feeds
2. Grasses are used for building houses
3. Homes of wild animals
4. Grasses control soil erosion
5. They beautify the compound
6. Grasses are used as mulches
7. For herbal medicines
8. Some are ingredients in our food like lemon grasses.

#### Craft materials made out of grasses

Carpets, brooms, baskets, dolls, ropes and hats, winnowing trays

### Activity

1. What are grasses?

\_\_\_\_\_

\_\_\_\_\_

2. State any **two** examples of grasses.

\_\_\_\_\_

\_\_\_\_\_

3. Mention any **two** basic needs animals get from grasses.

\_\_\_\_\_

\_\_\_\_\_

4. How are grasses important in the school compound?

\_\_\_\_\_

\_\_\_\_\_

5. Name the grass put in tea as ingredient.

\_\_\_\_\_

6. How do traditional herbalists benefit from the grasses?

\_\_\_\_\_

\_\_\_\_\_

7. Mention any **two** importance of grasses to people.

## Lesson

### Problems facing grasses

Over cultivation, Spraying with herbicides, Bush burning, over grazing, drought, floods, pests

### Solution to the problems facing grasses

1. By practicing rotational grazing
2. By practicing Bush fallowing
3. Fighting against Bush burning
4. Discouraging use of herbicides to kill grasses
5. By avoiding over cultivation
6. By avoiding swamp drainage

### Dangers of grass to people

1. Some grasses are poisonous to man and his animals.
2. Some grasses itch people
3. Some grasses attack dangerous animals which attack people
4. Grasses are breeding places for vectors
5. Some grasses are weeds in our garden

### Ways of caring for the grasses in our compound

By watering it

By trimming grasses

By spaying grasses

By fencing the compound

By restricting trespassing

## Activity

1. Below is a diagram of a boy sparing grasses. Use it to answer the questions that follow.



b) State **one** reason for spraying grasses using herbicides.

---

c) How is herbicides dangerous to plants?

---

d) State any **two** dangers of grasses to people.

---

e) Mention any **two** problems facing grasses.

---

f) Suggest **two** possible solutions to the problems stated above.

---

g) Give any other **two** ways of caring for the grasses.

---

## Lesson

### Flowers

Flowers are the plants grown for their beauty  
Florists are farmers who grow flowers for sale.

#### Examples of flower estates found in Uganda.

Rose bud, Victoria flowers, Oasis nurseries, Pearl flower estate, Nsimbe flower estate, Maire estates

#### Importance of flowers.

1. They are a source of income when sold.
2. Flowers are used for making perfumes
3. Flowers are used for making disinfectants
4. They are used for decoration.
5. They are used to give respect to the dead.
6. They are used to express love.
7. Some flowers are sources of herbal medicines

#### Problems faced by flowers

Droughts, floods, pests and diseases, bush fires,

#### Ways of caring for the flowers in our compound

- |                           |                                   |
|---------------------------|-----------------------------------|
| 1 By watering flowers     | 5 By restricting trespassing      |
| 2 By mulching flowers     | 6 By providing shelter to flowers |
| 3 By spaying flowers      | 7 By applying manure              |
| 4 By fencing the compound | 8 By pruning flowers              |

## Activity

- 1 Who is a florist?

---

- 2 State any **two** reasons why we grow flowers?

---

- 3 Mention any **two** social functions where flowers are used.

---

- 4 Give **two** economic values of flowers.

---

- 5 Why do we water flowers?

---

- 6 Name any **two** flower estates found in Uganda.

---

- 7 Outline **two** problems faced by flowers.

---

- 8 Mention any **two** ways of caring for the flowers on our school compound.

---

## Lesson

### (ii)NATURAL VEGETATION.

Natural vegetation is the plant life cover of an area that grows on its own.  
It includes all plants in the environment that grow without the influence of man.

#### Examples of natural vegetation

- |                    |                    |          |
|--------------------|--------------------|----------|
| 1. Natural forests | ❖ Swamp vegetation | ❖ Bushes |
| 2. Grasslands      | ❖ Thickets         |          |

3. Shrubs                      ❖ Natural flowers

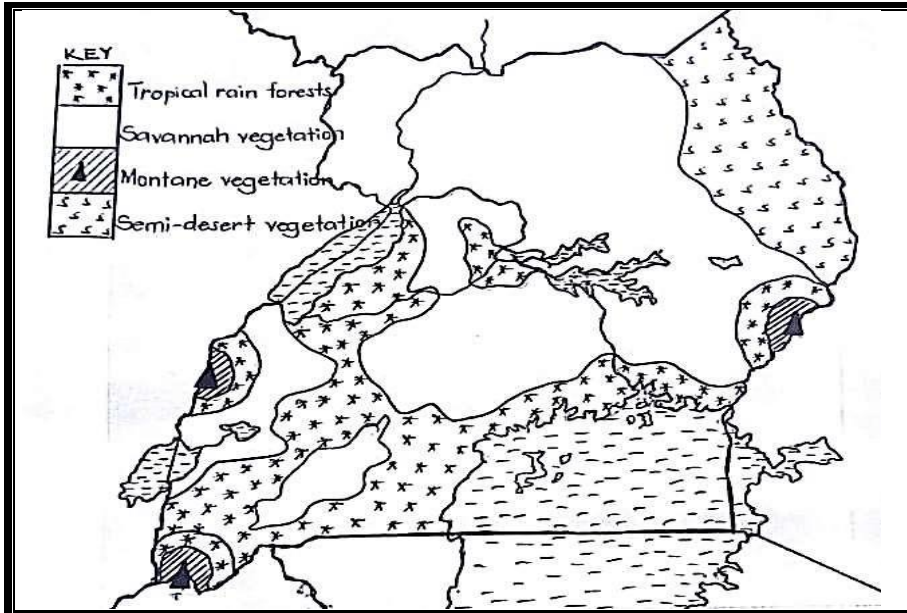
### **Types of natural vegetation/vegetation zones in Uganda**

A vegetation zone is an area under the same kind of plant life cover.

#### **Examples of vegetation zones in Uganda**

1. Equatorial rain forests/tropical rain forests.
2. Savannah vegetation.
3. Swamp vegetation
4. Semi-desert vegetation.
5. Montane vegetation.

#### ***Vegetation Zones In Uganda.***



#### **A) Equatorial rain forests**

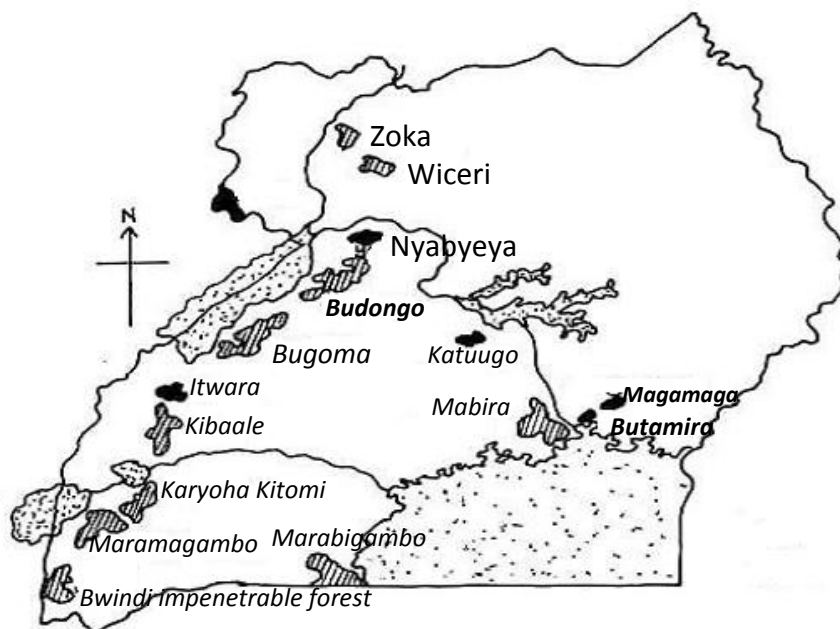
- ✓ Equatorial type of vegetation is described as ever green.
- ✓ These forests are ever green because they grow in areas that receive plenty of rainfall.
- ✓ Equatorial rain forests are also called the Tropical rain forests.
- ✓ They are called rain forests because they grow in areas that receive plenty of rainfall.
- ✓ Tropical rain forests mainly grow in areas which experience Equatorial climate, on the shores of Lake Victoria and in the South Western part of Uganda.

#### **Examples of natural forests in Uganda**

<b>Forest</b>	<b>District</b>	<b>Forest</b>	<b>District</b>
❖ Budongo (the largest)	❖ Masindi	❖ Mountain Rwenzori forest	❖ Kasese
❖ Mabira	❖ Buikwe	❖ Kibale forest	❖ Kibale
❖ Malabigambo	❖ Rakai	❖ Ssesse forest	❖ Kalangala
❖ Maramagambo	❖ Rubirizi and Mitooma	❖ Wiceri forest	❖ Amuru
❖ Bugoma	❖ Hoima		

#### **A map of uganda showing natural and planted forests.**





### Activity

1. What is natural vegetation?

---

2. State any **two** examples of natural vegetation.

---

3. State the reason why equatorial forests are ever green.

---

4. Equatorial rain forests are called the Tropical rain forests. Why so?

---

5. Give any **two** examples of natural forests in Uganda.

---

6. Name the largest natural forest found in Uganda.

---

### Lesson

#### Characteristics of natural forests

1. Trees are ever green. (They don't shed their leaves).
2. Trees are of different species.
3. Trees have broad leaves.
4. Trees grow very tall due to phototropism (to get sunlight).
5. Trees have buttress roots.
6. Trees have hard wood.
7. Trees take a long time to mature.
8. Trees form canopies that form a cover to the ground.
9. They have thick undergrowth. This makes them impenetrable.

Note:

- ✓ Deciduous trees are trees that shed their leaves during the dry season.
- ✓ A canopy is an umbrella-like structure formed by trees in tropical rain forests.

#### Common tree species found in natural forests.

- |             |                   |                |
|-------------|-------------------|----------------|
| 1. Mahogany | 3. African walnut | 5. Mvule trees |
| 2. Teak     | 4. Green heart    | 6. Ebony       |

### Economic activities commonly done in Equatorial rain forests

1. Lumbering
2. Fruit gathering.
3. Charcoal making.
4. Tourism
5. Herbal medicine collection

### Products obtained/ got from hard wood.

- |                 |                  |             |
|-----------------|------------------|-------------|
| ✓ Wooden tables | ❖ Benches        | ❖ Cupboards |
| ✓ Wooden desks  | ❖ Wooden windows |             |
| ✓ Wooden chairs | ❖ Wooden doors   |             |

### Importance of forests

1. Forests help in formation of convectional rainfall through transpiration.
2. They are source of income through tourism.
3. They act as a habitat for wild animals.
4. They are source of herbal medicine.
5. They help to reduce soil erosion.
6. They are source of timber.

### Activity

1. Why do trees in natural forests grow very tall and take so long to mature?

---

---

2. What are deciduous trees?

---

---

3. State any **two** common tree species found in the natural forests.

---

---

4. Mention any **two** economic activities commonly done in Equatorial rain forests.

---

---

5. State any **two** products obtained/ got from hard wood.

---

---

6. Mention any **two** problems facing forests in Uganda.

---

---

### Lesson

#### DEFORESTATION

Deforestation is the massive cutting down of trees without replacement.

Lumbering is the cutting down/felling of mature trees for production of timber.

#### Reasons why people cut down trees/ carry out deforestation

1. To get land for settlement
2. To get land for crop growing.
3. To get land for constructing roads.
4. To get land for building industries
5. To get timber.
6. To get wood fuel.

#### Dangers / effects of deforestation

1. It leads to soil erosion.
2. It leads to desertification/ drought.
3. It destroys the natural habitat for animals.
4. It leads to displacement of wild animals.
5. It leads to extinction of some tree species.
6. It reduces the amount of rainfall received in an area.

### Activity

1. How is deforestation different from lumbering?

---

2. State **two** reasons why people carry out deforestation.

---

3. Mention any **two** effects of deforestation.

---

### Lesson

#### Forest Conservation

Forest conservation is the act of protecting forests from extinction.

#### Ways of conserving forests.

1. By practicing afforestation.
2. By practicing re-afforestation.
3. By practicing agro-forestry
4. By teaching people on the importance of forests.
5. By educating people about the dangers of deforestation.
6. Through rural electrification. (extension of electricity to rural areas)

Note:

- ✓ **Afforestation** is the planting of trees on a large scale where they have never been/ existed.
- ✓ **Reafforestation** is the planting of trees on a large scale where they have ever been/ existed.
- ✓ **Agro-forestry** is the growing of crops together with useful trees on the same piece of land.
- ✓ **Forestry** is the practice of planting and caring for forests.
- ✓ **National Forestry Authority** (NFA) is the body that is responsible for conservation of forests in Uganda.
- ✓ **National Environment Management Authority** (NEMA) is the body responsible for conservation of the environment in Uganda.

#### Roles of NFA

1. It teaches people about the importance of forests.
2. It enforces laws against deforestation.
3. It creates forest reserves.
4. It evicts people settling in forest reserves.

#### Roles / activities of NEMA

1. Educates people the dangers of encroaching wetlands and forests.
2. To educate people the dangers of environmental degradation
3. To educate the public on the values of the environment
4. To educate the public on the proper ways of using the environment.
5. To protect wetlands, swamps and forests.

### Activity

1. Define forest conservation.

---

2. State **two** ways of conserving forests.

---

3. Define these terms:

a) Afforestation

---

b) Reafforestation

c) Forestry

4. Name the body that is responsible for conservation of forests in Uganda.

5. State **two** roles of the above national body.

6. Which national body is responsible for conservation of the environment in Uganda?

### Lesson

#### Semi-desert vegetation

A desert is a large dry area of land with few plants growing on it.

Semi-desert vegetation is mainly found in some parts of North Eastern Uganda.

- ❖ It grows in an area that experiences semi-desert type of climate.
- ❖ Plants that survive in very dry conditions mainly grow in this climatic region.
- ❖ Semi-desert vegetation has few trees because it receives very little rainfall.
- ❖ Trees in semi-desert vegetation have thick barks and thin leaves to reduce the rate of transpiration.
- ❖ Some plants in this area shed leaves to reduce on the rate of transportation.
- ❖ Cactus is able to survive in semi-desert conditions because it stores water in its stem.

#### Characteristics of Semi-desert vegetation

- a) Trees have thick barks.
- b) Trees have thin leaves that reduce the
- c) Trees are scattered.
- d) It has very short grass.
- e) Vegetation is scanty and resistant to
- f) Trees are short and thorny.
- g) Trees have long roots to tap underground water.

#### Common plants in Semi-desert vegetation

•Cactus •Poppies •Baobab •Acacia

#### Districts in Uganda that have Semi-desert vegetation

- a) Kotido
- b) Abim
- c) Karenga
- d) Moroto
- e) Nakapiripirit
- f) Kaabong
- g) Napak

Pastoralism is the major economic activity carried out in Semi-desert vegetation.

### Activity

1. What is a desert?

2. Why does semi-desert vegetation has few trees?

3. State the reason why trees in semi-desert vegetation have thick barks and thin leaves.

4. Why are cactus trees able to survive in semi-desert conditions?

5. Cite **two** characteristics of Semi-desert vegetation.

6. Suggest **two** common plants in Semi-desert vegetation.

7. Mention **two** districts in Uganda that have Semi-desert vegetation

## Lesson

### C) Mountain vegetation

It is also called montane vegetation

It is found in mountainous areas

Vegetation changes with increase in altitude.

Montane vegetation is mainly found on the slopes of mountains Rwenzori and Elgon.

#### Factors that cause vegetation variation in mountainous areas

1. Rainfall distribution
2. Altitude
3. Temperature

Note;- Heath is the low evergreen rough grass.

-Moorland is an area of highland covered with heath.

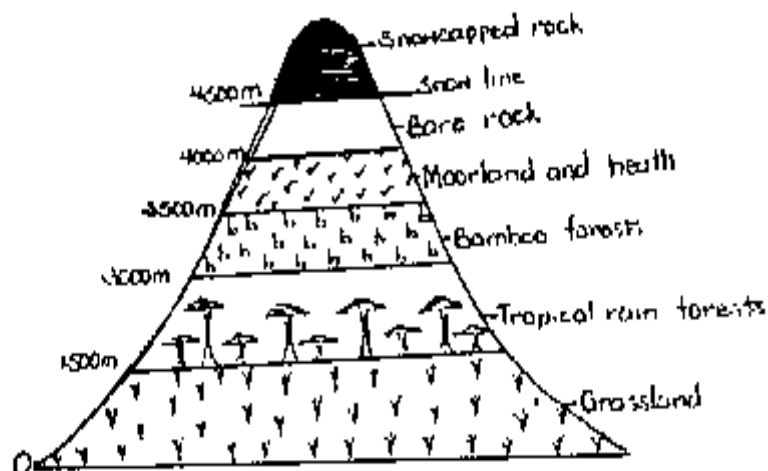
#### Characteristics of montane vegetation

1. Trees are ever green
2. Trees grow tall and straight.
3. The mountain tops have few plants due to low temperatures.
4. Trees are fairly spaced
5. The foothills have savannah grasslands.
6. Most trees provide soft wood
7. Vegetation grows in zones according to altitude.

The mountain top is free from both plants, animals and people due to cold conditions

#### Economic activities commonly carried out in montane vegetation.

- |                                 |                                |
|---------------------------------|--------------------------------|
| 1. Lumbering                    | 4. Charcoal making.            |
| 2. Fruit gathering              | 5. Bee keeping                 |
| 3. Cattle keeping/ pastoralism. | 6. Herbal medicine collection. |



## Activity

1. Name the vegetation found in mountainous areas.

2. Mention any **two** factors that cause vegetation variation in mountainous areas.

i)

ii)

3. State **two** characteristics of montane vegetation.

- i) \_\_\_\_\_
- ii) \_\_\_\_\_

4. Mention any **two** economic activities commonly carried out in montane vegetation.

- i) \_\_\_\_\_
- ii) \_\_\_\_\_

## Lesson

### d) SAVANNAH VEGETATION

Savannah vegetation is the name given to the Tropical grasslands of Uganda.

Savannah vegetation covers the largest part of Uganda.

Savannah vegetation is located in the Tropical climatic region of Uganda.

#### Savannah vegetation is divided into;

Savannah grasslands / dry savannah vegetation

It has short grass and few scattered trees. Savannah woodland / wooded savannah / wet savannah vegetation

It has tall grass and many trees.

#### Note;

✓ Most parts of Uganda are covered by savannah grasslands.

Grasslands are large pieces of land covered by tall grasses.

✓ Most game parks in Uganda are located in savannah grasslands because there is plenty of pasture for animals.

#### Characteristics of Savannah vegetation

1. It has tall grass.
2. It has scattered trees.
3. Trees have long roots which they use to tap underground water.
4. Grass appears green during the wet season.
5. Trees usually shed their leaves during the dry season. (in order to reduce the rate of transpiration)

Note: -Deciduous trees are trees that shed their leaves during the dry seasons.

#### Districts in Uganda that have Savannah vegetation

- |                 |            |           |
|-----------------|------------|-----------|
| 1. Gulu         | 4. Kitgum  | 7. Luwero |
| 2. Soroti       | 5. Mbarara |           |
| 3. Nakasongola. | 6. Mubende |           |

#### Common tree species in savannah vegetation

- Acacia
- Baobab

#### Economic activities commonly done in savannah vegetation

- |            |                |                |
|------------|----------------|----------------|
| 1. Tourism | 2. Pastoralism | 3. Bee keeping |
|------------|----------------|----------------|

#### Note:

Tourism is favoured by a big number of game parks.

Animal rearing is favoured by the plenty of pasture for animals.

## Activity

1. What name is given to the Tropical grasslands of Uganda?

\_\_\_\_\_

2. Name the vegetation type that covers the largest part of Uganda.

\_\_\_\_\_

3. Why are most game parks in Uganda located in savannah grasslands?

\_\_\_\_\_

4. State any **two** characteristics of Savannah vegetation.

- 
- 
5. Why do trees in savannah grasslands usually shed their leaves during the dry season?
  6. Suggest **two** districts in Uganda that have Savannah vegetation.
  7. State **two** common tree species found in savannah vegetation.
  8. State any **two** economic activities greatly done in savannah vegetation
- 
- 

### SWAMP VEGETATION

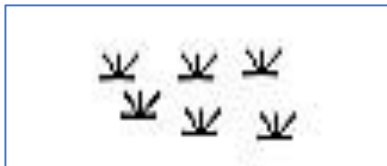
A swamp is a water logged area with vegetation.

Or. A swamp is an area that has vegetation and plenty of water.

Swamps are sometimes referred to as wetlands.

Swamps are found along rivers, lakes and valleys.

#### A map symbol of a swamp



#### Examples of swamp vegetation

- ✚ Papyrus      ✚ Palm trees

#### Economic activities commonly carried out in swampy areas.

- |                 |            |                   |
|-----------------|------------|-------------------|
| 1. Crop growing | 3. Fishing | 5. Mining         |
| 2. Tourism      | 4. Pottery | 6. Brick making . |

#### Swamp resources/ craft raw materials got from swamps.

1. Papyrus reeds-used for making baskets, mats, hats etc
2. Palm leaves-used for making mats etc.
3. Clay soil-used for making products like cups, plates, pots etc
4. Sandy soil-used for building.

#### Common crops grown in swamps

1. Rice      ✚Vegetables      ✚Yams      ✚Sugarcane.

#### Importance of swamps

1. They are a source of water.
2. They are a source of fish e.g. Mud fish.
3. They are a source of minerals e.g. Sand
4. They are habitats for aquatic animals e.g. Crocodiles, hippos and frogs
5. They help in formation of convectional rainfall.
6. They have spongy-like roots which help to filter water
7. Swamps help to control floods.
8. They are a source of raw materials for craft work e.g. Papyrus reeds, palm leaves etc.
9. They attract tourists who bring in income.

## Activity

1. What is a swamp?  
\_\_\_\_\_
2. Give another name to mean the same as swamp.  
\_\_\_\_\_
3. Draw a map symbol of a swamp  
\_\_\_\_\_
4. Mention any **two** examples of swamp vegetation.  
\_\_\_\_\_
5. State **two** economic activities commonly carried out in swampy areas.  
\_\_\_\_\_
6. Suggest **two** swamp resources/ craft raw materials got from swamps.  
\_\_\_\_\_
7. Write down any **two** common crops grown in swampy areas.  
\_\_\_\_\_
8. Give any **two** importance of swamps.  
\_\_\_\_\_

## Lesson

### Problems faced by people living near swamps.

1. Floods during the rainy season.
2. Attacks from disease vectors that live in swamps
3. Attacks from aquatic animals.
4. Poor road transport.

### Problems facing swamps

Swamp drainage, poor waste disposals, over harvesting swamp resources, droughts, flood

### Ways people misuse swamps.

1. By dumping industrial wastes in swamps.
2. Through uncontrolled harvesting of papyrus reeds.
3. By burning swamp vegetation.
4. Through swamp drainage.
5. Farming in the swamp areas



**Swamp drainage** is the removal of water from swamps.



**Swamp reclamation** is the act of changing a swamp from its natural state for other uses.

**Swamp encroachment** is the illegal settlement in swamps.

**How people drain swamps.**

1. By adding murrum in swamps.
2. By digging channels in swamps.

**Reasons why people drain swamps**

1. To get land for crop growing.
2. To get land for settlement.
3. To get land for constructing industries.
4. To construct roads.

**Effects of draining swamps**

1. It leads to drought/ desertification.
2. It leads to displacement and death of aquatic animals.
3. It leads to floods.
4. It destroys swamp vegetation
5. It leads to shortage of water for animals and people
6. It leads to displacement of aquatic animals.
7. It leads to reduction in craft raw materials.

**Ways of avoiding swamp drainage**

By Gazetting more wetlands

Sensitizing people on the importance of conserving wetlands

Enforcing laws against wetland encroaching

Teaching people on the dangers of swamp drainage.

**ACTIVITY**

1. State **two** ways people misuse swamps in your area.

---

2. What is :

a) swamp drainage?

---

---

swamp reclamation?

---

b) swamp encroachment?

---

3. State **two** ways how do people drain swamps.

---

4. Mention **two** reasons why people drain swamps.

---

5. State **two** dangers of draining swamps.

---

6. Give any **two** problems faced by people living near swamps.

---

7. Mention any **two** problems caused by the swamps to people.

---

## **VEGETATION DISTRIBUTION IN UGANDA**

Vegetation distribution is the way plant life is spread in an area.

Some parts of Uganda have thick vegetation while others have scanty / scattered vegetation.

### **Factors that influence/ affect vegetation distribution in Uganda**

- Altitude                      • Drainage system                      • Rainfall distribution /
- Human activities                      • Nature of soils                      • climate.

### **How the above factors affect vegetation distribution in Uganda.**

#### **1. Climate / Rainfall distribution**

Areas which receive plenty of rainfall have thick vegetation while those that receive very little rainfall have scanty vegetation.

#### **2. Drainage system**

Areas near large water bodies have thick vegetation while those that are far away from large water bodies have scanty vegetation.

#### **3. Altitude.**

Areas of low altitude have thick vegetation while those of high altitude have very little vegetation.

#### **4. Nature of soils / Soil fertility.**

Areas with fertile soils have thick vegetation while those with infertile soils have scanty vegetation.

#### **5. Human activities**

Some human activities promote the growth of vegetation while others destroy vegetation of an area.

#### **Human activities that destroy vegetation**

- |                     |                    |                 |
|---------------------|--------------------|-----------------|
| 1. Deforestation    | 3. Swamp drainage. | 5. Bush burning |
| 2. Over cultivation | 4. Overgrazing     |                 |

#### **Note:**

Deforestation, bush burning and over grazing cause soil erosion.

Deforestation and bush burning lead to displacement of wild animals, prolonged drought and also destroy the natural beauty of the environment.

#### **Qn: How does deforestation cause soil erosion?**

- It leaves the land bare exposing it to agents of soil erosion.

#### **Human activities which promote the growth of vegetation**

- |                    |                         |
|--------------------|-------------------------|
| (i) Afforestation  | (iii) Reforestation     |
| (ii) Agro-forestry | (iv) Rotational grazing |

### **Activity**

1. What is vegetation distribution?

---



---

2. State **two** factors that influence vegetation distribution in Uganda.

---



---

3. How can these factors affect vegetation distribution in Uganda

a) Rainfall distribution

---

b) Altitude.

---

c) Human activities

---

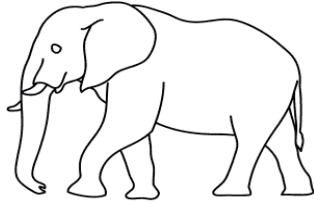
4. Mention any **two** human activities that destroy vegetation.

---



---

**Below is a diagram of an animal. Use it to answer the questions that follow.**



5. Name the animal shown above.

6. Name the type of animal shown above.

7. In which way can deforestation affect the animal above?

8. Apart from the animal above, mention any other two animals affected by deforestation.

9. How does deforestation cause soil erosion?

10. State any **two** human activities which promote the growth of vegetation.

i)

ii)

## Lesson

### The influence of vegetation on animals

#### a) Equatorial Rain Forests.

- ✓ There are tall trees that provide shelter to climbing animals.
- ✓ There are few herbivorous animals due to little grass.
- ✓ There are many climbing animals which feed on fruits in this zone.

#### Common animals in Equatorial rain forests

- |              |                         |
|--------------|-------------------------|
| (i) Baboons  | (iii) Mountain gorillas |
| (ii) Monkeys | (iv) Chimpanzees        |

#### Why climbing animals are common in Tropical rainforests.

1. They have many fruits which climbing animals feed on.
2. There are many trees which provide a natural habitat to climbing animals.

#### b) Savannah Vegetation

- (i) Grass eating animals (herbivorous animals) are common in this region.
- (ii) Flesh eating animals (carnivorous animals) also live in savannah vegetation in order to feed on herbivorous animals.

#### Why most animals live in Savannah vegetation zone.

1. There is plenty of pasture for animals.
2. Carnivorous animals live in savannah to hunt other animals.

#### Common animals in Savannah vegetation

Zebras	Warthogs	Antelopes
Leopards	Hyenas	Kobs
Lions	Buffaloes	

#### Swamp and Montane vegetation

##### Swamp Vegetation

- ❖ Animals that live both in water and on land are common in swamp vegetation.

#### Common animals found in swamp vegetation

- |               |                   |          |
|---------------|-------------------|----------|
| a) Crocodiles | c) Hippopotamuses | e) Frogs |
| b) Snakes     | d) Tortoises      |          |

#### d). Semi-Desert Vegetation

There are few animals in semi-desert vegetation due to limited grass and water for animals.

### Common animals in Desert vegetation

1. Squirrels
2. Camels
3. Ostriches
4. Newts

### e)Mountain Vegetation

1. It has many animals with a lot of fur.
2. It has many climbing animals that feed on fruits.
3. It has many gorillas that feed on bamboo shoots.

### Common animals in montane vegetation

1. Mountain gorillas
2. Monkeys
3. Chimpanzees
4. Baboons

### Activity

1. Why are there many climbing animals in the equatorial rainforests?  
\_\_\_\_\_
2. State any **two** examples of common animals in equatorial rain forests.  
\_\_\_\_\_  
\_\_\_\_\_
3. Why are herbivorous animals commonly found in tropical rainforests?  
\_\_\_\_\_  
\_\_\_\_\_
4. Why do most animals live in savannah vegetation zone?  
\_\_\_\_\_  
\_\_\_\_\_
5. Mention any **two** common animals found in swamp vegetation.  
\_\_\_\_\_  
\_\_\_\_\_
6. Suggest **two** common animals found in desert vegetation.  
\_\_\_\_\_  
\_\_\_\_\_
7. Suggest any **two** common animals which live in montane vegetation.  
\_\_\_\_\_  
\_\_\_\_\_

### Lesson

#### PLACES FOR WILDLIFE CONSERVATION.

- National parks
- Zoos
- Sanctuaries
- Game reserves
- Marine parks

#### NATIONAL PARKS IN UGANDA

**A Game Park** is a large area of land gazetted by the government for wildlife conservation.

**Wildlife** refers to animals, birds, plants and insects that live on their own in the natural habitat.

#### Major national parks in Uganda

1. Murchison Falls National Park.
2. Lake Mburo National Park.
3. Kidepo Valley National Park
4. Mountain Rwenzori National Park.
5. Mountain Elgon National Park.
6. Bwindi Impenetrable National Park
7. Mgahinga National Park.

#### Major tourist attractions in some Uganda's national parks

National park	Major tourist attraction	Area (in km <sup>2</sup> )	Type
Murchison Falls National Park	Crocodiles / Murchison falls	3,840	Savannah
Kidepo Valley National Park	Ostriches	1,442	Savannah
Queen Elizabeth National Park	Hippopotamuses	1,978	Savannah
Lake Mburo National Park	Flamingo birds/ Zebras	370	Savannah
Bwindi National Park	Mountain gorillas	321	Forest
Mgahinga National Park		33.7	Forest

Rwenzori National Park		996	Forest
Mountain Elgon National Park		1,121	Forest
Semliki National Park		220	Forest
Kibale National Park		795	Forest

## LESSON

### A Game reserve

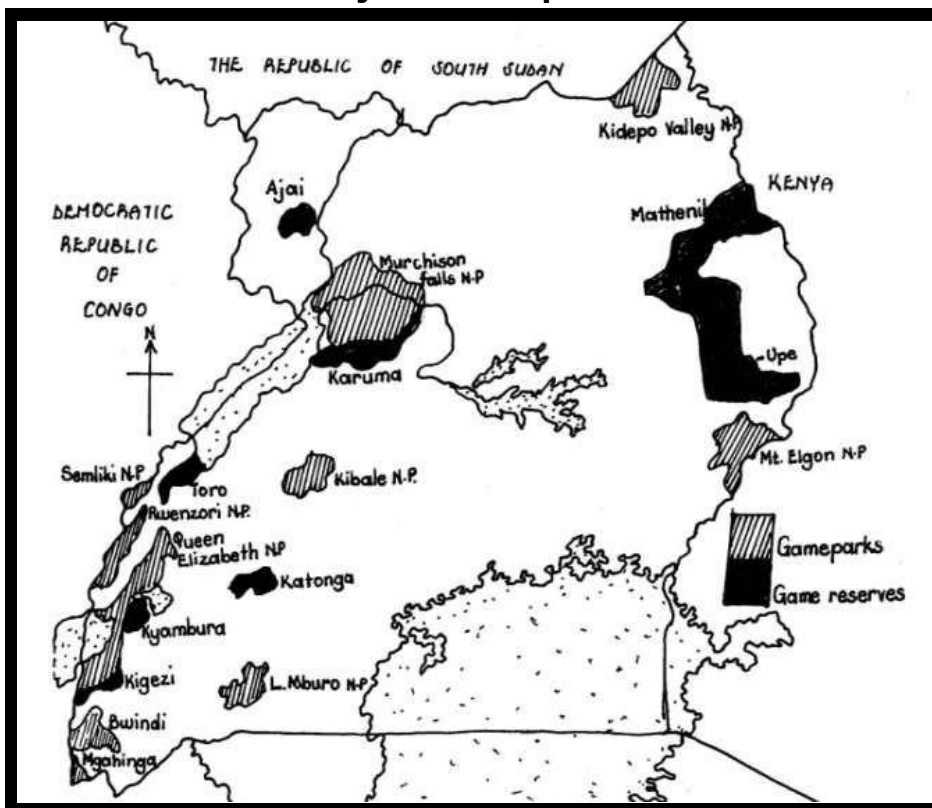
A game reserve is a large area of land gazetted by the government for future expansion of game parks.

Controlled hunting can be allowed in a game reserve after seeking permission.

### Examples of game reserves in Uganda

1. Pian-upe game reserve.
2. Matheniko game reserve
3. Bokora game reserve
4. Karuma game reserve
5. Ajai game reserve
6. Katonga game reserve
7. Kigezi game reserve

### Major National parks and Game reserves in Uganda



### Importance of national parks

1. They create job opportunities to people .e.g. The game rangers
2. They earn income through attracting tourists.
3. They promote the development of infrastructure e.g. Hotels, roads.
4. They are used for education and scientific research.
5. They help to preserve wildlife for the future generation to see.
6. They promote international relationships.
7. They attract tourists who bring foreign exchange

### Activities that commonly take place in Uganda's national parks

- ✦ Animal tracking      ✦ Boat rides      ✦ Bird watching
- ✦ Mountain climbing      ✦ Nature walks      ✦ Game drives

### Prohibited/ unauthorized activities in national parks

1. Animal grazing

2. Hunting
3. Crop cultivation
4. Human settlement.

### Activity

1. State any **two** places for wildlife conservation in Uganda.  
\_\_\_\_\_
2. What is the difference between a game park and a game reserve?  
\_\_\_\_\_
3. What is wildlife?  
\_\_\_\_\_
4. Mention any **two** major national parks found in Uganda.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_
5. Give any **two** examples of game reserves in Uganda.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_
6. In which **two** ways are national parks important to us?  
i) \_\_\_\_\_  
ii) \_\_\_\_\_
7. Suggest **two** activities that commonly take place in Uganda's national parks.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_
8. Give any **two** unauthorized activities in national parks.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_

### **Problems facing national parks in Uganda**

#### **a) Poaching**

**Poaching** is the illegal hunting of animals in national parks.

1. It leads to extinction of animal species in national parks.
2. Poaching reduces the number of animals in national parks.

#### **Why people carry out poaching.**

1. To get meat.
2. To get horns and ivory from them.
3. To get hides and skins.

#### **b) Prolonged drought**

1. It dries pasture on which animals feed.
2. It also destroys the natural habitat for animals.

#### **c) Bush fires.**

1. They destroy habitats for animals.
2. They lead to displacement of wild animals
3. They destroy pasture for animals.
4. They lead to death of animals.

#### **d) Outbreak of animal diseases.**

Diseases lead to death of animals in national parks.

#### **e) Human encroachment on national parks.**

❖ It leads to displacement of wild animals.

#### **f) Political instability in some parts of Uganda.**

1. It leads to death of animals in national parks.
2. It leads to displacement of wild animals.
3. It leads to destruction of the natural habitat for animals.

### **Possible solutions to problems facing national parks in Uganda**

1. By enforcing laws against poaching.
2. By sensitizing people about the importance of wild animals
3. By improving on security in areas near national parks.
4. By extending veterinary services in game parks.
5. By enforcing laws against human encroachment on national parks.

### **Ways of caring for animals.**

1. By protecting them.
2. By feeding them on nutritious feeds.
3. By treating sick animals.
4. By treating sick animals.

Note: -Game wardens protect wildlife in national parks, and also control fire from destroying plants and animals.

### **Importance of caring for animals**

1. It promotes tourism.
2. It promotes education and research.
3. It reduces death of animals.

#### **Activity**

1. Why is poaching an illegal activity in national parks?

---

2. State **two** reasons why people carry out poaching.

i) 

---

ii) 

---

3. What is a prolonged drought?

---

4. How is a prolonged drought a problem to animals in the game parks?

---

5. Mention any **two** outcomes of Bush fires to the game animals.

i) 

---

ii) 

---

6. State **two** possible solutions to problems facing national parks in Uganda.

i) 

---

ii) 

---

7. Mention **two** ways of caring for animals.

i) 

---

ii) 

---

8. State **two** values of caring for animals.

i) 

---

ii) 

---

### **Tourism Industry in Uganda**

- ✓ Tourism is the movement of people to places of interest for pleasure, enjoyment or study purpose.
- ✓ A tourist is a person who travels to places of interest for pleasure, enjoyment and study purposes.

### **Tourism is called an industry because;**

1. It generates income.
2. It creates job opportunities to people.

Tourism is called **an invisible trade** because it generates income without exchanging physical goods.

Tourism is called **an invisible export** because it generates foreign exchange without exporting physical goods.

### **Types of tourists**

1. Local tourists
2. Foreign tourists.

Local tourists move from one part of the country to another for tourism while foreign tourists move from one country to another for tourism.

### **Major tourist attractions in Uganda**

- |               |                      |            |
|---------------|----------------------|------------|
| 1. Wildlife   | 4. Historical sites  | 7. Climate |
| 2. Vegetation | 5. Beautiful beaches |            |
| 3. Culture    | 6. Physical feature  |            |

### **Importance of the Tourism industry**

1. It creates job opportunities to people.
2. It promotes the development of infrastructure like roads, hotels.
3. It promotes international relationship.
4. It creates market for locally manufactured goods.
5. It provides foreign exchange to the government
6. It is a source of revenue to the government.
7. It promotes conservation of wildlife.

### **Problems facing the Tourism industry in Uganda**

1. Political instability in some parts of Uganda.
2. Poor transport and communication network.
3. Poor accommodation facilities.
4. Shortage of funds to promote the tourism industry.
5. Limited tourist attractions in some parts of Uganda.
6. Limited advertisement of tourist attractions on international media.

### **Solutions to the problems facing Uganda's Tourism industry**

1. By improving on security in all parts of Uganda.
2. By enforcing laws against poaching.
3. By constructing better roads in all parts of Uganda.
4. By advertising Uganda's tourist attractions on international media.
5. By importing new species of wildlife in Uganda.
6. By training more game wardens.
7. By building better accommodation facilities in Uganda.
8. By Gazetting more wildlife conservation areas.

### **Dangers of Tourism**

1. Some tourists come as spies.
2. Tourism can bring about spread of diseases in the country.
3. Tourism can bring about change of culture.
4. Some tourists teach people anti-social behaviors.

### **Activity**

1. What is tourism?

---

2. Who is a tourist?

---

3. State the reason why tourism is called an:

a) industry.

---

b) invisible trade.



c) invisible export.

4. Mention any **two** major tourist attractions found in Uganda.

5. State **one** importance of the Tourism industry.

6. Suggest any **two** problems facing the Tourism industry in Uganda.

7. State **two** possible solutions to the problems facing Uganda's Tourism industry.

8. In which **two** ways can tourism be dangerous to a country?

### Lesson

#### General importance of vegetation

1. It is a source of food to people and animals.
2. It is a source of herbal medicine.
3. It acts as a natural habitat for animals.
4. It helps in formation of convectional rainfall through transpiration.
5. It is a source of building materials e.g. spear grass.
6. It controls soil erosion.
7. It is a source of income through attracting tourists.
8. It is a source of raw materials for crafts industry.
9. It is a source of wood fuel i.e. charcoal and firewood.
10. It purifies air by absorbing carbon dioxide and releasing oxygen to the atmosphere.

#### Dangers of some vegetation

1. Some vegetation is poisonous to people and animals.
2. It creates breeding places for disease vectors.
3. It harbours dangerous animals to man.
4. It creates hiding places for wrong doers.

#### Effects of population / people on vegetation

1. People clear vegetation to get land for settlement.
2. People clear vegetation to construct industries.
3. People cut down trees in order to get wood fuel.
4. People clear vegetation to construct roads.

### Activity

1. State **two** ways in which vegetation improve the health of human beings.

2. Mention any **two** examples of herbal medicine

3. State **two** dangers of some vegetation.

4. Mention any **two** effects of over population on vegetation.

**Vegetation conservation**

This is the protection of plant life from being destroyed.

It is the act caring for and protecting plants in the environment.

**Human activities which destroy vegetation in an area**

- |                    |                      |
|--------------------|----------------------|
| 1. Deforestation   | 4. Bush burning      |
| 2. Swamp drainage. | 5. Over cultivation. |
| 3. Brick making    | 6. Over grazing      |

**Ways how man destroys vegetation in an area.**

- |                            |                              |
|----------------------------|------------------------------|
| 1. Through bush burning    | 4. Through overgrazing.      |
| 2. Through deforestation.  | 5. Through over cultivation. |
| 3. Through swamp drainage. |                              |

**Ways of conserving vegetation.**

1. By afforestation.
2. By reafforestation.
3. By agro-forestry.
4. By establishing game parks and game reserves.
5. By establishing forest reserves.
6. Through rural electrification.
7. By using energy saving cooking stoves.
8. By enforcing laws against deforestation.
9. By teaching people about the importance of vegetation.
10. Through rotational grazing.
11. Through controlled harvesting of plants in the environment.

**Bodies that promote conservation of vegetation in Uganda**

- a) National Environment Management Authority (NEMA)  
This conserves and protects wetlands/environment in Uganda.  
NEMA is under the Ministry of Water and Environment.
- b) National Forestry Authority (NFA)  
This conserves forests in Uganda.
- c) Uganda Wildlife Authority (UWA)  
This conserves wildlife in national parks in Uganda.

**How NEMA conserves the environment/ roles of NEMA.**

1. It teaches people about the importance of forests and swamps.
2. It creates forest reserves.
3. It enforces laws against wetland degradation.
4. It evicts people settling in wetlands.

**Importance of conserving vegetation**

1. It reduces soil erosion.
2. It conserves the natural beauty of the environment.
3. It promotes constant supply of wood fuel.
4. It conserves the natural habitat for animals.
5. It promotes tourism.
6. It promotes constant supply of craft raw materials.
7. It controls drought.

**Activity**

1. Explain what the word "vegetation conservation" means.  

---

---
2. Suggest **two** human activities which destroy vegetation in an area.



2. State **two** reasons why the two stated areas above are sparsely populated.

- i) \_\_\_\_\_
- ii) \_\_\_\_\_

3. State the reason why:

a) Equatorial rain forests are sparsely populated.

- i) \_\_\_\_\_
- ii) \_\_\_\_\_

b) Savannah vegetation zones are densely populated.

- i) \_\_\_\_\_
- ii) \_\_\_\_\_

c) Slopes of mountains are densely populated.

- i) \_\_\_\_\_
- ii) \_\_\_\_\_

d) The tops of mountains have very few people.

- i) \_\_\_\_\_
- ii) \_\_\_\_\_