



PRIMARY SIX SELF STUDY MATERIALS

ENGLISH LANGUAGE

LESSON 1: Use of Adverbs

Learning Outcomes

By the end of this lesson, you should be able to:

- i) identify ways of doing things.
- ii) use of adverbs in your daily life activities.

You will need:

- a pen
- a book

Introduction

An adverb is a word that tells more about a verb, an adjective and another adverb. Adverbs tell us how an action is done: when? why? how? and where?

Examples

- i) The cyclist is riding **slowly**.
- ii) Children should cross the road **carefully**.

Activity 1

Use the correct form of the word in the brackets to complete the sentences below.

Examples have been given to guide you.

1. Tino **cleverly** avoided the punishment. (clever)
2. Uganda's population is **steadily** rising. (steady)
3. St Thomas choir sang the second compulsory song _____. (beauty)
4. The host welcomed us _____. (cheer)
5. We _____ waited for his return from Ojipaku market. (patience)
6. Italians have seen the _____ coronavirus attacked. (worse)
7. They answered the question _____. (wise)
8. A machete is _____ bigger than a knife. (usual)

9. The hungry boy ate the mango _____. (greed)
10. The hunter _____ attacked the lion in its den. (brave)

Activity 2

Order of Adverbs

When more than one adverb is used in a sentence, they usually follow in this order: manner (how?), place (where?) and time (when?).

Example

The pedestrian crossed the road carefully (**how?**) at the zebra crossing (**where?**) yesterday (**when?**).

From the sentences below, underline the adverbs of manner, place and time.

1. The traffic officer called the driver loudly at the junction in the morning.
2. Many cyclists ride carelessly at the traffic lights every day.
3. The bus driver spoke politely to the passenger on the bus on Tuesday.
4. My mother nicely made cakes from the kitchen last weekend.
5. It rained heavily in our area last year.

LESSON 2: Informal Letter Writing

Learning Outcomes

By the end of this lesson, you should be able to:

- i) express your views on safety on the road.
- ii) write a letter about safety on the road.

Introduction

Letter writing is one way of sending a message between or among people. You can write a letter to a friend, parents, relatives and many others.

Activity 1

1. (a) Write a letter to your father appreciating him for his effort to keep everybody well in this period of COVID-19 pandemic. Wish him a longer stay in this life. Use your school address.
- (b) The letter below has some words missing. Using the words in the box, complete it by filling in the gaps correctly.

| | | | | |
|------|-------------|---------|----------|--------------|
| reap | advise | purpose | academic | not |
| arua | discussions | hear | dear | examinations |

Owayi Primary School,

P.O Box 135,

19th March, 2020.

_____ Maxwell,
How is Komendaku? Hoping you are fine. The _____ of writing to you is to _____ you about how to prepare to excel in _____. On my side, I am very seriously engaged in group _____ and research as well. I wish to _____ from you too, on what you are doing to cross that _____ river. Hoping you are _____ wasting time in a disco and playing cards under the big mahogany tree near the football pitch. The proverb states "You _____ what you sow."

I wish you the best in your struggle.

Yours,
Akasa Brian.

(HEALTH TIP: Stay home and observe social distance to stay safe.)

Lesson 3: Traffic Dangers

Learning Outcomes

By the end of this lesson, you should be able to:

- i) identify causes of accidents.
- ii) apply the highway code to use the road safely.

You need:

- a dictionary
- an exercise book
- a pen or pencil

Introduction

Study the picture below and think about what is happening.



In your exercise book, write down any five causes of road accidents. Using a dictionary, look up these words and note their meanings:

crossroads, junction, accident, first aid, careful, Highway Code

Read the poem below carefully and answer the questions about it in full sentences.

Accidents! Accidents!

Worst thing in life!

You are as deadly as coronavirus,

You rob us of our dear ones,

Sometimes in large numbers.

Accidents! Accidents!

We know what brings you.

Failure to follow the Highway Code,

Speeding, drink-driving

But you still come.

Accidents! Accidents!

You are common at crossroads

You are common at junctions

You are common at roundabouts

We know, but you still happen.

Accidents! Accidents!

Shame on you, for we can stop you

First, motorists must be careful on the road

Next, don't drive vehicles in poor mechanical conditions

And above all, master the Highway Code.

Arsene M.

Activity

- a) What is the poem about?
- b) What are accidents compared to?
- c) Mention one cause of accidents.
- d) Apart from the roundabouts, where else do accidents occur?
- e) Who should become our friend in order to overcome accidents?
- f) Suggest a suitable title to this poem.

Follow-up Activity

Write your own poem about accidents. It should have four stanzas. Each stanza should have four lines.

(HEALTH TIP: Avoid shaking hands, observe social distancing, stay safe and wash your hands with water and soap!)

Lesson 4: Traffic Dangers

Learning Outcomes

By the end of this lesson, you will be able to:

- i) apply the Highway Code to use the road safely.
- ii) interpret road signs.

You will need:

- manila
- fibres
- boxes
- sticks/wood etc.
- paper
- clay
- a dictionary

Activity

1. You are going to draw, model or make some road signs using the materials above.
2. You will be assisted by your parent/guardian or any adult at home.
3. For the choice you make, take note of these expectations:

| Choice | Expectation |
|-----------|---|
| Drawing | Draw on a manila. Draw at least four road signs. Colour your picture. |
| Modelling | This involves using clay or wax. You can model at least two road signs. You are free to paint your model. |
| Making | This requires using materials like fibres, plywood, boxes etc. You can make at least two road signs. |

Introduction

Study the picture below.



Step 1: Identify the road signs you plan to make, draw or model. Examples of road signs: junctions, crossroads, road humps, school children crossing, cattle crossing, zebra crossing, hospital ahead, church ahead etc.

Step 2: Collect the materials related to your choice above.

Step 3: You can begin making, drawing or modelling.

In case you choose drawing, remember to label your pictures.

Step 4: Keep your product/work safely and remember to hand it in to your teacher of English.

COVID -19 kills! Avoid touching the eyes, nose, or mouth before washing your hands with clean water and soap.

Lesson 5: Debating—Direct and Indirect Speech

Learning Outcomes

By the end of this lesson, you should be able to use direct and indirect speech in the present simple tense.

You will need

- an exercise book
- a pen/a pencil

Introduction

Direct speech

In this lesson you will first learn to how to change sentences from direct to indirect speech.

Step 1: What do you do when someone does something bad to you?

How do you get to know what others have said about you?

Step 2: When you are telling others what you want them to do, you use direct speech.

Examples

- Do not make fun in the debate.
- Smile when the audience shouts you.

Step 3: When someone else wants to tell others what you exactly said, she or he will then use direct speech. Quotation marks will be included.

Examples

- Mrs Nsamba says, "Don't make fun during the debate."
- My father said, "Smile when the audience shouts at you."

Step 4: The following sentences are in direct speech. Which words were exactly said by the speaker?

- Mary said, "Kucana is the chairperson of the debate."
- Kilama says, "Bruno and Brenda oppose the motion."
- Fatuma said, "Muhwezi loves the motion."
- Ikilai says, "The opposers are noisy."

Step 5: Study the examples below before you write the exercise.

| Direct speech | Indirect(Reported) speech |
|---|--|
| 1. "We hold debates on Monday," Akio said. | 1. Akio said that they held debates on Monday. |
| 2. They say, "Zulufa debates confidently." | 2. They say that Zulufa debated confidently. |
| 3. "Does Rona love the motion?" Wambwa asked. | 3. Wambwa asked if Rona loved the motion. Wambwa wanted to know if Rona loved the motion. |
| 4. Sisye said, "The chairperson is fair." | 4. Sisye said that the chairperson was fair. |
| 5. Alupot said, "I want to chair the debate next Monday." | 5. Alupot told me that she wanted to chair the debate the following week. |

Note:

The tense changes when we change from the direct to indirect form. In the examples above, the tense changed from the present simple to the past simple tense because the situation has changed.

Exercise

Rewrite the following sentences in indirect (reported) Speech.

- They said, "Waiswa makes noise in the debate."
- She said, "Arinaitwe dozes in the debate."
- Nasimolo said, "Lukia plays so much in the debate."
- Cale said, "Namubiru likes the motion."
- Mrs Owor said, "You don't know the proposers."
- The chairperson said, "Rugunda opposes the motion."
- Agola said, "Droti hates the motion."
- The timekeeper said, "Asaakibwe spends more time."
- Gwendibo said, "The opposers raise good points."
- Kiconco said, "The proposer uses difficult words."

Lesson 6: Debating—A Dialogue

Learning Outcome

By the end of this lesson, you will be able to write a dialogue about debating.

You will need

- an exercise book
- a pen/a pencil

Introduction

A dialogue is a communication between two or more people.

Step 1



- What can you see in the picture?
- How many boys can you see in the picture?
- Why is one of the children in a wheel chair?

Step 2: Read the dialogue below on COVID-19 in preparation for the activity on writing a dialogue on debating.

CONTROLLING COVID-19 IN UGANDA

- Waiswa:** Hello Oguti, this is your friend Waiswa calling from Kamuge.
- Oguti:** Hello Waiswa, how are you in this total lockdown?
- Waiswa:** I am careful not to get in contact with infected people.
- Oguti:** What are you doing exactly to avoid contracting COVID-19?
- Waiswa:** Didn't you listen to the President's directives? We should stay at home. All those who move to the markets and trading centres must be back home before 7:00 pm because there is curfew in the whole country.
- Oguti:** I hope you always wash your hands with soap for at least for 47 seconds before entering the house or touching objects.
- Waiswa:** Yes I do. But I also only use soap and the sanitizer my mother bought to clean tables, chairs, doors handles and window latches.
- Oguti:** Lucky you! For us our parent s only bought soap which we use for washing our hands and cleaning other things.
- Waiswa:** That is ok. Either soap or

sanitizer can killing the virus and keep us safe.

Waiswa & Oguti: Let us all fight this virus by staying at home and staying safe.

Step 4: Answer the following questions about the dialogue.

- How many people are talking in the dialogue?
- Who are the people taking part in the dialogue?
- According to the dialogue why do you think there is a total lockdown?
- Why should you use soap to wash your hands?
- What lesson do you learn from the dialogue?

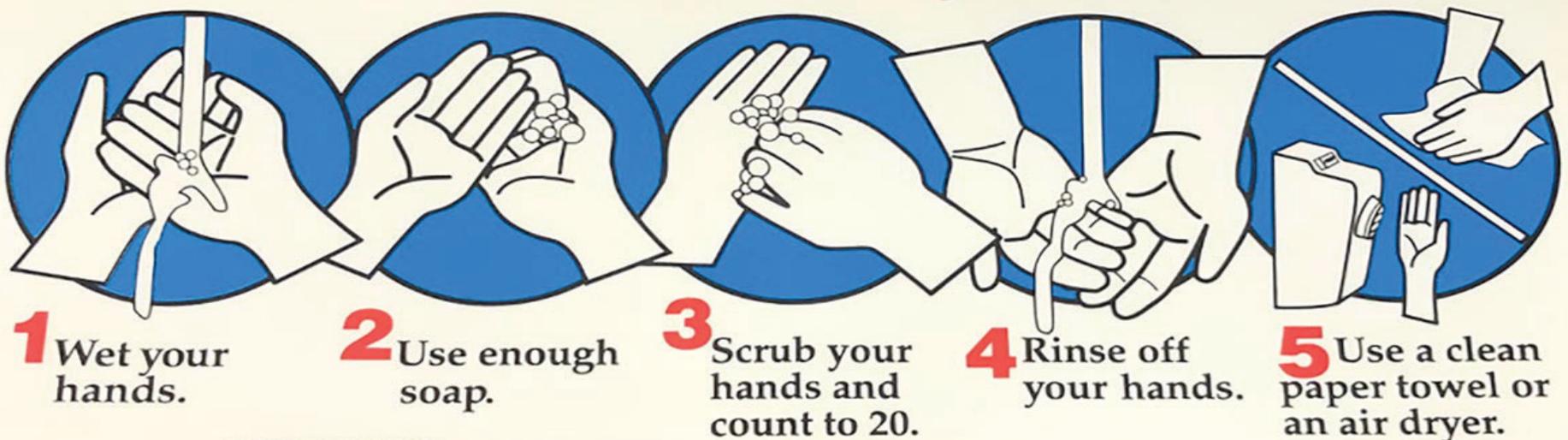
Exercise

Write a short dialogue about debating in your school. Use only 4 lines. In your dialogue let the characters talk about a debate they participated in. Choose the names of the characters for your dialogue.

- Think about how your dialogue will look like before you start writing.
- Give the dialogue a good title that matches with what you have written.
- Begin each sentence with a capital letter.
- Use punctuation marks in your dialogue.
- Be neat.

What you need to know about coronavirus disease 2019 (COVID-19)

Remember... wash your hands



SOCIAL STUDIES

Lesson 1: The Cradle of Human Race in East Africa

By the end of this lesson you should be able to:

- mention the importance of the study of human origin.
- list the sources of history.
- give the meaning of each source of history.
- mention the examples of oral and written sources of history.

Materials you need:

- pens
- a notebook or exercise book
- Social Studies textbooks for Primary Six (if possible)
- Primary School Atlas for Uganda (if you have one)
- a dictionary

Introduction

In P.5, you studied about the people of Uganda. You learnt about the people of pre-colonial Uganda, the major ethnic groups of people, their origin, and places in which they settled in Uganda. You went ahead and studied about the social, political and economic organisation of each ethnic group.

Step I

Remember that the people of East Africa migrated from different areas to settle in places they are found in today. There are factors that caused their migration from their cradleland and their settlement in areas they occupy today.

Step II

- You need to know the importance of studying about the origin of the human race. We study the importance of human origin because:
 - It helps us to know how human beings developed up to their current stage.
 - It helps us to know the activities which were carried out by our ancestors.
 - It helps us to know and maintain our culture.
- You need to also know that there are different ways we came to know about the past and present events. This is through using different sources of history. The sources of history are:
 - Oral tradition

- Linguistics
- Anthropology
- Archaeology
- Written records

i) Oral tradition

This is the information passed down by word of mouth from one generation to another. It is also called oral history. It is the oldest form of recording information.

Sources of oral tradition

- legends
- myths
- proverbs
- riddles
- poems

NOTE: The advantage of using oral tradition is that it is a cheap way of getting information. However, this source of history has one disadvantage because the information can be changed by the narrators to suit their interests.

Can you narrate one of the legends you have ever heard?

ii) Linguistics

Linguistics means the study of the origin and development of language. It helps us to know the movement and settlement of people of long ago. It also helps us to trace the origin of the people.

iii) Written records

- It is also called written history.
- Written records are the written information about past events.
- The sources of written history**
 - Novels, diaries, journals, newspapers, letters, magazines, history books.

Advantages of written records

- The information is not easily changed.
- The information can be kept for a long time.

Disadvantages of written records

- It is expensive to buy the sources of written records.

v) Archaeology

Archaeology is the scientific study of material about the past. Archaeology helps us to know the tools which the people of the past used, the activities they did and the places where they settled.

Lesson 2: Archaeologists and Their Findings in East Africa

By the end of this lesson you should be able to:

- suggest the meaning of excavation, fossils, archaeologists, artefacts, dating and stratigraphy.
- find out the names of archaeologists in East Africa and give their discoveries.
- locate and name examples of archaeological sites on the map of East Africa.
- mention the importance of archaeological sites.
- draw a sketch map of East Africa showing archaeological sites.

Materials you will need:

- pencils
- pens
- SST textbooks for P.6 (if possible)
- Primary School Atlas for Uganda (if you have one at home)
- a notebook or exercise book

Introduction

Step I

Historians believe that East Africa is the origin of the human race. This is the reason why it is called the cradleland of the human race. Historians came to this conclusion after they made some archaeological findings.

Step II

- The people who dig and study the remains of the people who lived in the past, their tools, and the animals they kept are called **archaeologists**.
- The remains of the people, animals and plants that lived long ago are called **fossils**.
- The process of digging remains or fossils is called **excavation**. The people who dig out fossils are called **excavators**.

Some fossils that archaeologists study are as follows:

| | | |
|-------------|-------------|---------------|
| Human skull | Stone axe | Arrow and bow |
| Spear | Bolos | Pot |
| Bone needle | Dog's skull | |

Note:

- The places where excavations are carried out are called

archaeological sites or Stone Age sites or Early Man settlement sites.

- ii) The process of determining how old fossils are, is called **dating**.
- iii) The classification of different fossils dug up according to the depth of the ground in which they are found is called **stratigraphy**.

Examples of archaeologists in East Africa

1. Dr Louis Leakey and his wife (in 1959)
 - They discovered the oldest skull of man at Olduvai Gorge in Tanzania.
 - The oldest skull of man was named Zinjanthropus.
 - Anthropus means man and Zinjanthropus means black man.
2. Dr. Merrick Posnasky
 - He discovered the remains of the Bachwezi at Bigobyamugenyi.
3. J.S. Kirkman and Dr. Neville Chittik
 - They excavated the remains or fossils at the coast of East Africa.

Examples of archaeological sites in East Africa

| Uganda | Kenya | Tanzania | Rwanda | Burundi |
|------------------------|----------------|------------|------------------|-----------|
| - Bigobyamugenyi | - Olorgesaille | - Olduvai | - Nyungwe forest | - Nyungwe |
| - Sango Bay | near L. | Gorge | | |
| - Nsongezi | Magadi | - Apis | - Nyirankuba | |
| - Nyero Rock paintings | - Rusinga | Rock | | |
| - Paraa – Luzira | - Yala Alego | - Lake | | |
| - Magosi – Ntutsi | - Kanam | Eyasi | | |
| | - Kanjera | - Isimaila | | |
| | - Fort | - Engaruka | | |
| | - Ternan | - Lactoli | | |
| | near Kisumu | | | |

Lesson 3: Major Ethnic Groups in East Africa

By the end of this lesson you should be able to:

- i) give the meaning of ethnic groups.
- ii) name the major ethnic groups of people in East Africa.
- iii) trace the origin of early ethnic groups of people in East Africa.
- iv) use the map of East Africa showing the migration and settlement of ethnic groups to answer the questions about it.

Materials you need:

- pens
- an exercise book or notebook

Introduction

It is very important to know that today,

there are many people living in East Africa. They speak different languages, and have different origins and cultural practices. They do different activities, as you found out when you studied about how different people came to live in Uganda.

Step I

The different people who settled in East Africa have different origins and the factors for their migration depended on the climatic conditions and the economic activities they did. Some were cultivators and others were pastoralists. These people migrated many years ago and settled in the places they occupy today. Their homelands were actually outside East Africa.

Step II

- i) You are to learn about different ethnic groups of people in East Africa.

An ethnic group is a group of people who share the same origin, language and culture.

- ii) The major ethnic groups of people in East Africa are:

- The Bantu
- The Nilotics/Luo/River-Lake Nilotes
- Kushites/Hamites
- Plain Nilotes and Highland Nilotes

Work to do:

Match the ethnic group of East Africa to the place of origin

Ethnic Group Place of Origin

1. Bantu
Ethiopian Highlands
2. River-Lake Nilotes
Cameroon Highlands
3. Cushites
Bahr el Gazel
4. Plain Nilotes

Lesson 4: The Factors that Influenced the Movement and Settlement Patterns of the People in East Africa

By the end of this lesson, you should be able to:

- i) give the factors that influenced the movement and settlement of the ethnic groups of people in East Africa.
- ii) state the origin of the Bantu and their occupation.
- iii) give the characteristics of the Bantu people of East Africa and Bantu groups.

- iv) mention reasons why the Bantu migrated.
- v) give examples of Bantu tribes in East Africa.
- vi) give the effects of the migration and settlement of the Bantu in East Africa.

Materials you will need:

- Pens
- Exercise books
- Primary School Atlas for Uganda, if possible
- SST textbooks, if you have one at home

Factors that Influenced the Migration and Settlement of Ethnic Groups in East Africa

What to do:

- a) You are requested to read the instructions carefully and attempt all the questions that you will be given.
- b) It is very important to write down all the words in their correct spelling and form correct sentences as you do the activity.

Introduction

In P.5, you studied about the reasons for the migration of early people to Uganda. You learnt about the Bantu, their origin, why they migrated, where they settled, their occupation and the different Bantu tribes in Uganda.

Step I

There are many factors that make people migrate today. In the same way, early groups migrated from their homelands for different reasons.

Step II

Factors that influenced the migration and settlement of the major ethnic groups in East Africa.

- i) They were looking for areas with fertile soil and reliable rainfall, i.e. the Bantu.
- ii) They were running away from internal conflicts.
- iii) The need for pasture and water.
- iv) A famine outbreak in their homelands.
- v) A disease outbreak in their homelands.

1. The Bantu ethnic group

- i) The Bantu are believed to have migrated from the Cameroon

Highlands and their occupation was cultivation.

- ii) The Bantu are the largest ethnic group in East Africa.
- iii) The Bantu speak related languages characterised by the word “ntu” when referring to a person or things, and they practise related cultural ceremonies.
- iv) The Bantu migrated and settled in the interlacustrine (Great Lakes) region because the region has fertile soil and receives reliable rainfall.

The Bantu groups of East Africa

- i) The Western Bantu or Interlacustrine Bantu.
- ii) The Central Bantu.
- iii) The Southern Bantu (the last Bantu group to come to East Africa).

| Uganda | Kenya | Tanzania | Rwanda | Burundi |
|--------------|-------------|------------|--------|---------|
| - Baganda | - Kikuyu | - Nyamwezi | - Hutu | - Hutu |
| - Banyankole | - Akamba | - Yao | | |
| - Bakiga | - Meru | - Ngoni | | |
| - Basoga | - Luhya | - Chagga | | |
| - Batoro | - Taita | - Haya | | |
| - Banyoro | - Gusii | - Wapare | | |
| - Bagwere | - Embu | - Hehe | | |
| - Basamia | - Mijikenda | - Makonde | | |
| - Bagisu | | - Zaramo | | |
| - Banyole | | - Wafipa | | |
| - Bamba | | | | |
| - Bakonzo | | | | |
| - Bafumbira | | | | |

Effects of Bantu migration

- i) The Bantu introduced new skills such as farming and pottery.
- ii) They increased the population of East Africa.
- iii) The Bantu formed kingdoms.
- iv) They introduced new languages and the Bantu culture.
- v) The Bantu displaced the pygmies.

Activity

1. Which group of people were displaced by the Bantu in East Africa?
2. Why did the Bantu settle in the interlacustrine region?
3. a) Name the last Bantu tribe to migrate and settle in East Africa.
b) Give at least two reasons for the migration of the Bantu.
c) Where was the origin of the Bantu?
4. Name any one Bantu tribe that settled on mountain slopes.
5. How are the Chagga similar to the Bagisu in terms of:
 - a) ethnicity
 - b) occupation

Lesson 5: Ways of Living of the Peoples of East Africa in the Past and Present

By the end of this lesson, you should be able to:

- i) mention the different ways of living of different groups of people in the past.
- ii) give the ways people of the past were politically organised.
- iii) mention the examples of kingdoms and chiefdoms in the past and today.
- iv) state the advantages and disadvantages of the kingdoms.
- v) locate and name examples of kingdoms and chiefdoms on the map of East Africa.

Materials you will need:

- pencils
- pens
 - an exercise or notebook

Political Organisation of the People in the Past in East Africa

What to do:

- i) Revise how the people of Uganda were politically, socially and economically organised.
- ii) In this topic, you are to study the ways in which the people in the past were socially, economically, politically and religiously organised in East Africa.

Introduction

- In the past, people were governed by kings, chiefs and clan heads and under principalities. Those who were ruled by the kings were said to have a centralised monarchy while those who were ruled by the chiefs were under a decentralised system of governance.
- In the same way, people today are governed in different forms like kingdoms and different governments with leaders who carry different titles, such as presidents or prime ministers.

Step I

In this lesson, you are going to study the different ways people in the past were politically organised. In the present, for example in Uganda, we have two levels of government under which people are governed, i.e. the central government and the local government. Similarly, in the past people were governed in the ways given below.

Step II

Ways different people were politically organised in the past:

- in kingdoms
- in chiefdoms
- under principalities
- through clan heads

Political organisations among the Bantu

In East Africa, most of the Bantu tribes formed kingdoms.

A kingdom is a large area of land governed by a king or queen.

Examples of early kingdoms in East Africa:

- Bunyoro Kingdom
- Buganda Kingdom
- Ankole Kingdom
- Toro Kingdom
- Karagwe Kingdom
- Wanga Kingdom

Bantu tribes that formed kingdoms in East Africa

- Banyoro
- Baganda
- Banyankole
- Batoro
- Banyamboie
- Karagwe
- Luhya (Wanga Kingdom)

The characteristics of kingdoms

- i) Each kingdom had a hereditary leader called a king.
- ii) Each kingdom had a single supreme king at any one time.
- iii) Kingdoms have special regalia.
- iv) People in every kingdom belonged to classes.
- v) The burial places for kings are called royal tombs.

Advantages of kingdoms

- They unite members of the same tribe.
- They promote culture.
- They mobilise people for national tasks.
- They promote morals among people.

Disadvantages of kingdoms

- They encourage tribalism.
- They promote dictatorship.

Examples of early chiefdoms

- Busoga chiefdom
- Chagga chiefdom
- Unyamwezi chiefdom
- Ukumbi chiefdom
- Hehe chiefdom
- Yao chiefdom

Activity

1. a) What are royal regalia?
b) Name any two examples of royal regalia.

2. Why were the Bantu able to form kingdoms?
3. In which two ways were people in the past politically organised?
4. Name the oldest kingdom in East Africa.
5. Give any one advantage of kingdoms.

Lesson 6: Bunyoro Kitara Empire

By the end of this lesson, you should be able to:

- i) give the meaning of an empire.
- ii) locate the areas that Bunyoro Kitara Empire occupied on the map of East Africa.
- iii) name the founder and founders of Bunyoro Kitara Empire.
- iv) mention the dynasties that ruled Bunyoro.
- v) state the contributions of the Bachwezi.
- vi) give reasons why Chwezi rule finally declined.

Materials you will need:

- pens
- a notebook or exercise book
- Primary School Atlas for Uganda (if possible)
- SST textbooks for P.6 (if possible)

What to do:

- Mind about the spelling and handwriting as you do this work.
- You are reminded to attempt all the questions you will be given in the activity.

Introduction

In this lesson, you are to study about the Batembuzi, the Bachwezi and their contributions, why Chwezi rule declined and the Luo-Babito dynasty in Bunyoro.

Step I

The kingdoms we have today were founded many years ago and have had many leaders or dynasties coming one after the other. The history of the interlacustrine kingdom started with the decline of Bunyoro Kitara.

Step II

- i) An empire is a large area of land governed by one leader called an emperor.
- ii) The earliest empire in East Africa was Bunyoro Kitara Empire that occupied areas of modern western Kenya, northern Tanzania, Rwanda, Burundi and the area between Lakes Kyoga, Victoria, Edward and Albert.

- iii) Bunyoro Kitara Empire was founded by Ruhanga and his brother Nkya. The Batembuzi founded Bunyoro Kitara Empire.
- iv) The Tembuzi dynasty came to an end when King Isaza was locked in the underground world by King Nyamiyonga.
- v) The Bachwezi succeeded the Batambuzi as the rulers of Bunyoro Kitara Empire.
- vi) The first ruler of the Bachwezi was Ndahura, the grandson of Isaza and the last ruler of the Bachwezi was Wamala.

Social contributions of the Bachwezi

- i) They introduced the local chess game, *omweso*.
- ii) They introduced cowhide sandals.
- iii) They introduced building of grass thatched huts.
- iv) They introduced bark cloth making.

Economic contributions of the Bachwezi

- i) They introduced coffee cultivation.
- ii) They introduced ironworking.
- iii) They introduced pottery.
- iv) They started salt mining in Lake Katwe.

Political contributions of the Bachwezi

- i) They introduced a centralised system of administration.
- ii) They introduced royal regalia such as the royal drums, spears and arrows.
- iii) They introduced the art of building reed palaces.
- iv) They started earth fortification, building of ditches for protection.

Note: The headquarters of the Bachwezi was at Bigobyamugenyi.

Reasons why the Bunyoro Kitara Empire declined/causes of Chwezi decline

- i) The kingdom was too big to be controlled by one king.
- ii) Misunderstandings and power struggles among the Chwezi.
- iii) Death of the king's beloved cow, Bihogo.
- iv) The Luo-Babito invasion.

Activity (remember to answer these questions by giving smart responses)

1. How did the size of Bunyoro Kitara Empire lead to its decline?
2. In which way did Luo migration into Uganda affect Bunyoro Kitara Empire under the Bachwezi?
3. How does Bigobyamugenyi benefit the government of Uganda today?
4. State any two ways in which the

Bachwezi led to the economic development of Uganda.

5. Ask your parents/guardians whether there are some new people who came to settle in your area and try to find out the effects of their settlement on the society you are living in.

Lesson 7: Bunyoro Kingdom

By the end of this lesson, you should be able to:

- i) mention the founder and founders of Bunyoro Kingdom.
- ii) name the kingdoms that were formed after the decline of Bunyoro Kitara Empire.
- iii) state ways the Banyoro were socially, economically and politically organised.

Materials you will need:

- pens
- an exercise book
- Primary School Atlas for Uganda (if possible)
- SST textbooks (if you have one at home)

What to do:

- Mind your spelling and handwriting as you do the activity.
- You can get help from an adult near you where you find difficulties.

Introduction

In this lesson, you are going to study about the founders of Bunyoro Kingdom, kingdoms that broke away from Bunyoro Kitara, some leaders of Bunyoro Kingdom and the organisation of the people of Bunyoro Kingdom.

Step I

- i) As you learnt earlier, different people in East Africa were politically organised in kingdoms and had only one hereditary leader at a time who was called a king.
- ii) Bunyoro Kingdom was founded by Luo speakers. The Luo speakers founded the Luo Babito dynasty in Bunyoro. A dynasty is a series of rulers from the same family.
- iii) The founder of the Babito dynasty in Bunyoro was Isingoma Mpuga Rukidi, who was the son of Kyomya.
- iv) Other kingdoms that were formed after the decline of Bunyoro Kitara Empire include:
 - Bunyoro Kingdom

- Ankole Kingdom
- Urwanda
- Buganda Kingdom
- Karagwe Kingdom
- Urundi
- Wanga Kingdom

Remember:

- i) The title of the king of Bunyoro Kingdom is Omukama. He appointed his prime minister and chiefs to administer all the areas under Bunyoro Kingdom.
- ii) Economically the Banyoro:
 - kept cattle
 - engaged in cultivation
 - carried out iron smelting
 - took part in barter trade
 - engaged in salt mining
- iii) Bunyoro Kingdom reduced in size because:
 - Toro broke away.
 - some of its land was given to Buganda by the British colonialists.

Activity

1. Who founded the Luo-Babito dynasty in Bunyoro?
2. State any two economic activities the people in Bunyoro Kingdom carried out.
3. Why did Toro break away from Bunyoro Kingdom?
4. Name any four kingdoms that were formed after the collapse of Bunyoro Kitara.
5. Write down any one commodity the people of Bunyoro exchanged with the Baganda.
6. Mention any four commodities people in your area:
 - a) get from the neighbouring communities.
 - b) sell to the neighbouring communities.
7. Ask your parents to tell you:
 - a) the names of leaders in your community, i.e. at the village, sub-county and district levels and their titles.
 - b) The name of the current king of Bunyoro Kingdom.
8. Do you, as a family, have any item that you sell to the community? If yes, how does the family benefit from the sales?

Lesson 8: Buganda Kingdom

By the end of this lesson, you should be able to:

- i) state how Buganda Kingdom started.
- ii) mention the founder of

- iii) give the factors for the growth and expansion of Buganda Kingdom.
- iv) give ways the Baganda were politically, socially and economically organised.

Materials you will need:

- pens
- an exercise book
- SST textbooks (if possible)
- Primary School Atlas for Uganda (if you have one)

What to do

- Remember to read through the notes carefully and answer the questions that follow.
- You can seek help from the elders near you, where necessary.

Introduction

In this lesson, you are going to learn about Buganda Kingdom, how it was formed, the founders, why it grew and expanded and its organisation before the coming of the colonialists.

Step I

Buganda is located in the Central region of Uganda and is bordered by L. Victoria to the south, the River Nile to the east, Ankole and Bunyoro to the west and Busoga chiefdom to the east.

The population of Buganda increased through raiding the neighbouring communities.

Step II

- i) Buganda Kingdom started as a small territory and its size expanded when the kings raided the neighbouring communities, especially the Banyoro.
- ii) The founder of Buganda Kingdom is believed to be Kato Kimera, the twin brother of Isingoma Mpuga Rukidi, who founded the Luo-Babito dynasty in Bunyoro.
- iii) Buganda Kingdom has a supreme ruler called a king or Kabaka. Under him there is a council or Lukiiko headed by the Prime Minister (Katikiro). The kingdom was divided into counties, sub-counties, parishes, sub-parishes and villages.

Reasons for the growth and expansion of Buganda Kingdom

- i) The strategic position of

- ii) Buganda had able kings who organised a strong army.
- iii) Buganda got guns from the Arab traders during long-distance trade.
- iv) A good climate and fertile soil.

Economic organisation of the Baganda

The Baganda carried out:

- bark cloth making
- boat making
- rearing of animals
- trade in ivory, iron tools

Social organisation of Baganda

- The Baganda believed in ancestral spirits or gods like Musoke, Dungu, Kibuuka and Nagawonye.
- The Baganda are divided into 52 clans named after animals, plants and birds, which are their totem.

Activity

1. How did Buganda Kingdom benefit from participating in long-distance trade?
2. How did Buganda benefit from being near Lake Victoria?
3. State any one economic activity the Baganda engaged in before the coming of colonialists.
4. How were the people of Buganda socially organised?
5. a) Write down the title given to the king of Buganda.
 - b) Ask your parents/guardian to tell you the former and current king of Buganda Kingdom.

Lesson 9:

Wanga, Karagwe, Ankole and Toro Kingdoms

By the end of this lesson, you should be able to:

- i) locate the positions of Wanga, Ankole, Toro and Karagwe Kingdoms on the map of East Africa.
- ii) mention the founders of the above kingdoms.
- iii) mention the title given to the head of each of the above kingdoms.
- iv) state the different ways people in the kingdoms above were socially, politically and economically organised.

Instructions

- You are reminded to read through

- the notes carefully and attempt all the questions in the activity.
- You are encouraged to seek help from the people near you, where possible.

Introduction

In this lesson you are to study about other kingdoms that were found in East Africa such as Ankole, Toro, Karagwe and Wanga.

Step I

Apart from Bunyoro and Buganda Kingdoms, other Bantu tribes, such as the Batoro, Baluhya, Banyambo and Banyankole, also formed kingdoms.

Step II

a) Wanga Kingdom

- Wanga Kingdom was located in western Kenya around Lake Victoria.
- Wanga Kingdom was the only kingdom that existed in Kenya.
- Wanga Kingdom was named after its founder, Wanga.
- The Luhya tribe founded the Wanga Kingdom and the title that was given to the king of Wanga Kingdom was Nabongo.
- People in Wanga Kingdom carried out activities such as
 - circumcision -
 - worshipping of gods -
 - crop growing -
 - animal rearing

b) Karagwe Kingdom

- Karagwe Kingdom existed in the south of Ankole, in Toro and Buganda,
- and in northern Tanzania near L. Victoria in the Bukoba region.
- It was founded by the Banyambo. It was founded by Ruhinda, the founder of Ankole and grandson of Wamala.
- King Rumanika was one of the greatest kings of Karagwe.
- Karagwe grew as a result of long-distance trade.
- Karagwe was organised under clans and sub-clans.
- The title of the head of Karagwe was Muharambwa.

c) Toro Kingdom

- Toro Kingdom broke away from Bunyoro Kingdom.
- Toro Kingdom was formed by Prince Kaboyo, who was the son of Omukama Kyebambe Nyamutukura II of Bunyoro Kingdom.

- Toro broke away from Bunyoro due to not getting enough services from headquarters.

Political organisation of Toro Kingdom

- It had a centralised system of administration.
- The title of Toro's king is Omukama.
- The current king of Toro is Oyo Nyimba Kabamba Iguru.

Economic organisation of Toro

They had two classes, namely:

- The Hinda Batoro (herdsmen and rulers).
- Bairu Batoro (cultivators).

d) Ankole Kingdom

- It was founded by Ruhinda, the grandson of Wamala in Ankole sub-region.
- The title for the kingdom of Ankole was Omugabe.
- Socially, the people of Ankole had two classes of people, that is the Bairu and the Bahima.
- The people of Ankole were mainly pastoralists (Bahima) and cultivators (Bairu).
- Ankole Kingdom has not been restored since its collapse in 1967.

e) Rwanda and Urundi Kingdom

- The title for the kings of Rwanda and Urundi was Umwami.
- The king had superior powers, and had chiefs who helped him to
 - control people and collect taxes.

Activity

- Mention the kingdom that existed in western Kenya.
- How did Dr. Apollo Milton Obote affect kingdoms in Uganda?
- Which group of people introduced a centralised system of governance in Uganda?
- Match the items in A with those in B correctly.

A
B

- | | |
|----------------------|---|
| i. Buganda Kingdom | - |
| Omukama | |
| ii. Wanga Kingdom | - |
| Muharambwa | |
| iii. Karagwe Kingdom | - |
| Nabongo | |
| iv. Banyoro Kingdom | - |

Kabaka

Correct order:

- Buganda
- Wanga Kingdom
- Karagwe Kingdom
- Bunyoro Kingdom

Lesson 10: The Nyamwezi Chiefdom

By the end of this lesson, you should be able to:

- mention the tribes that were organised in clan systems.
- discuss the roles that the clan leaders performed.
- state reasons for the growth and expansion of the Nyamwezi Chiefdom.
- mention the names of famous leaders of the Nyamwezi Chiefdom.

Materials you will need:

- Pens
- SST textbooks for P.6, if possible
- An exercise book
- Previous lesson notebooks
- An SST atlas, if you have one at home

What to do:

- Read the instructions carefully before completing each activity.
- Ask an adult for help where you find challenges when doing an activity.
- Mind your spelling, handwriting and form correct sentences.

Introduction

In P.5 you learnt about the different chiefdoms that were formed in Uganda. In this lesson you are going to learn about the Nyamwezi chiefdom in Tanzania.

Step I

- Writing down examples of tribes that formed chiefdoms as learnt earlier, i.e. the Basoga, Nyamwezi, Yao, Chagga, Acholi.
- The roles that were performed by the clan heads, which included the following:
 - They were the political heads of their clans.
 - They performed rituals and religious ceremonies.
 - They settled disputes among clan members.
 - They protected clan property.

Step II

- A clan is a group of people who descended from the same forefather.

- ii) The Nyamwezi were organised in chiefdoms. Each chiefdom was headed by a ruler called Mutemi/Ntemi.
- iii) The famous rulers of Nyamwezi were Chief Mirambo and Nyungu Ya Mawe.

Roles of Ntemi

- They were supreme rulers.
- They led prayers and made sacrifices to gods on behalf of their people.
- They were in charge of the royal drum.

Chief Mirambo

- i) He was one of the greatest leaders of the Nyamwezi.
- ii) His capital was at Urambo.
- iii) Mirambo acquired military skills from the Ngoni who had captured him as a slave.
- iv) Mirambo started as a ruler of a small chiefdom called Ugowe.
- v) He built a large empire which he divided into provinces ruled by Vatwale.

Why Mirambo succeeded.

- He had able and strong rulers.
- He acquired guns from slave traders that were used for protection and raiding the neighbours.
- He controlled the trade routes.

Nyungu Ya Mawe

- He succeeded Chief Mirambo.
- He developed a centralised system of administration.
- Nyungu Ya Mawe means 'pot of stones' which symbolised his strength and ability to rule the empire.
- He was succeeded by his daughter Mugalula, who was later overthrown by the German colonialists.

Activity

1. How did Chief Mirambo lead to the growth of Nyamwezi Chiefdom?
2. How did long-distance trade contribute to the growth and expansion of Nyamwezi Chiefdom?
3. What name was given to the strong fighters of Chief Mirambo?
4. With guidance from your parents or guardians, find out some of the roles that are performed by the local council (LC) committee members of your village.

Lesson 11: Social Organisation, Culture and Customs

By the end of this lesson, you should be able to:

- i) give the ways through which pre-colonial people were socially

- organised.
- ii) discuss the value of clan symbols.
- iii) give the meaning of a culture, its aspects and types.
- iv) mention the importance of culture and its challenges.
- v) state some of the ways of preserving culture.

Materials you will need:

- pens
- exercise books
- an SST textbook (if you have one)

What to do:

- i) Read the questions and the above notes before attempting the activity.
- ii) You are reminded to mind your spelling and handwriting as you do the activity.
- iii) Research from the elders about culture.

Introduction

In Primary Four and Five, you learnt about culture, its elements, customs, norms, taboos and values. In this lesson, you are going to study the ways people in East Africa were socially organised and the ceremonies they performed.

Step I

- i) Ways in which pre-colonial people were socially organised
 - in clans
 - in lineages
 - as kinfolk
 - in sub-lineages
- ii) Symbols of a clan:
 - A clan head
 - Chanting
 - Clan names

Note: The clan was the largest and highest social set-up and a family was the lowest and smallest social set-up.

Step II

- i) What is culture? It is the norms and values of a given society.
- ii) Elements or aspects of cultures are:
 - music, dance and drama
 - circumcision
 - language
 - child naming
 - dressing
 - burial ceremonies
 - worship
 - marriage

Types of culture

- Material culture

- Non-material culture

Importance of culture

- i) It promotes unity
- ii) It promotes morals
- iii) It promotes peace
- iv) It promotes a sense of identity
- v) It promotes identity

Problems facing culture

- i) Influence by western culture such as wearing of miniskirts and open blouses, homosexuality, sex work, lesbianism.
- ii) Failure to speak local languages.
- iii) Failure to appreciate the cultural norms.

Ways of preserving culture

- i) Recording
- ii) Strengthening the teaching and use of local language
- iii) Organising cultural festivals

Norms: These are accepted ways of behaviour in a given society.

Values: These are principles of behaviour.

Customs: These are the accepted ways of behaviour in a particular society.

Examples of norms and values:

- beliefs
- moral habits
- dressing
- politics
- technology
- art and crafts
- initiation ceremonies

Taboos: These are customs prohibiting people from having contact with a particular thing or doing something. They teach how to work and promote morals.

Activity

1. With the help of your parents/guardian, mention any four cultural ceremonies performed by the people in your community today.
2. Ask your parents/guardian why and how children in your community are named.
3. Request your parents/guardian to tell you the name of your clan (if possible) and its symbol, norms and customs.
4. Request your parents/guardian to guide you to mention any two ways in which cultural ceremonies performed by people in your community are important.
5. Find out at least four taboos in your tribe.
6. How do the Bagisu initiate their boys

into adulthood?
7. Why should culture be preserved?

Lesson 12: Ways of Worshipping in East Africa

By the end of this lesson you should be able to:

- give the ways in which the people of long ago worshipped.
- give ways in which people in East Africa worship today.
- state the similarities and differences in worship between the past and the present.

Materials you will need:

- pens
- SST textbooks
- exercise books
- a resource person (any adult)

Instructions/Tips

- Read the questions and instructions carefully before doing the activity.
- Ask an adult for help in case of difficulties when doing an activity.
- Mind your spelling and handwriting when doing the activity.
- Research from adults to find out the different ways of worshipping in your community.

Introduction

In this lesson, you are going to learn how people in the past worshipped and compare it with how people in your community worship God.

Step I

- In the past, worship was part of life. Each tribe, community and family had different ways of worship and different types of places of worship. People practised African traditional religion then.
- List the similarities between Christianity and African traditional religion.
- Outline the differences between Christianity and African traditional religion.

Step II

Ways in which people worshipped in the past:

- People used to worship gods and idols or sacred objects.
- People could worship wherever the need arose.
- People used to offer sacrifices to gods such as goats, bulls and cows.
- Sacrifices were given as a way of pleasing the gods and gain favours from them.
- People at times worshipped and offered sacrifices in the shrines,

under huge trees, around special stones or on hill tops.

Ways of Worship in East Africa Today

- Most people in East Africa practise Christianity and Islam.
- Christians go to churches mainly on Sundays for worship.
- Muslims go to mosques for Juma prayers on Fridays.
- Muslims and Christians believe in God Almighty and have religious leaders who teach and guide them in worshipping God.

Activity

- Mention the current ways of worship in East Africa.
- With the help of your parents, find out the different religions of East Africa.
- Ask your parents to help you mention the different Christian sects in East Africa.
- With the help of your parents, find out the places of worship for different religions.
- Mention the titles given to some of the religious leaders in East Africa.

Lesson 13: The Factors Which Influenced Settlement and Population

Growth in the Past and Present

By the end of this lesson, you should be able to discuss factors that influenced settlement in the past and today.

Materials you will need:

- pens
- SST textbooks (if possible)
- exercise books

What to do:

- Read the instructions carefully before doing the activity.
- Mind your spelling and handwriting as you do the activity.

Introduction

In P.5, you learnt about factors that determine settlement. We hope you still remember them. In this lesson, you are to learn about the factors which influence human settlement. The people you see in different areas settled there due to different factors.

Step I

- Write down the meaning of population.
- Ask your parents/guardian to help you know why they decided to settle

where they are and why they think some areas have many people and others few.

Step II

Factors that influenced settlement of people in the past

- Fertile soil
- The presence of pasture and water
- Availability of reliable rainfall
- The absence of crop pests, diseases and parasites
- Availability of enough land for settlement.

Factors that Influence Human Settlement Today

- The presence of fertile soil
- Improved social services
- The presence of heavy rainfall
- The existence of many job opportunities
- Availability of better paying jobs
- Urbanisation
- Industrialisation

Activity

- State any two factors that influenced the settlement of early people.
- Give any two similar factors that influenced human settlement in the past and today.

Lesson 14: Factors that Influence Population Distribution

By the end of this lesson, you should be able to:

- give the meaning of population distribution.
- discuss factors that influence population distribution.
- locate places on the map of East Africa with large and small populations.

Materials you will need:

- pens
- an SST textbook (if possible)
- an exercise book

What to do:

- Read the instructions carefully before you attempt the activity.
- You need to seek help from the adults in finding out why some areas have many people and others few.
- Using your neighbouring villages or homes, take note of the way houses are spread out.
- Mind your spelling and handwriting as you do the activity.

Introduction

In P.5, you studied about population distribution. The way people are spread out in an area or country differs from place to place. Some areas in East Africa have large numbers of people and others small numbers. This means some areas are densely populated and others are sparsely populated.

In this lesson, you are going to learn why some areas have many people and others few. You will also be able to identify the areas in East Africa with large and small populations.

Step I

- i) Find out some areas in your locality with large and small numbers of people.
- ii) Ask any adult at home to help you know why the number of people above differs.

Step II

- i) Using the map of East Africa, locate areas with:
 - large populations
 - small populations
- ii) Consult your parents about why the population differs from place to place or country to country.
- iii) With the help of an adult at home, find out why there are more people in towns than in villages.
- iv) With guidance from any elder, discuss:
 - the benefits of living in towns rather than villages.
 - the benefits of living in villages rather than towns.

A map of East Africa showing population distribution



Activity

1. What is population distribution?
2. Write down any four factors that influence population distribution.
3. Name any four places in East Africa with large numbers of people (use the map above).
4. Mention any two places in East Africa with small populations (refer to the map).
5. Which factors make shores of L. Victoria and mountain slopes have many people?
6. Name the country in East Africa with:
 - a) the largest population
 - b) the smallest population (Research with the help of an adult).
7. Which challenges do you think people living in the areas below face?
 - i) Urban areas
 - ii) Rural areas
8. Why do you think some people like living in urban areas?
9. Name any two jobs some people do in the following areas:
 - i) villages
 - ii) urban areas

Lesson 15: Factors that Influence Population Growth in the Past and Present

By the end of the lesson, you should be able to:

- i) give the meaning of population growth.
- ii) mention the most populated and least populated country in East Africa.
- iii) state factors that influence population growth.
- iv) mention the effects of population growth.
- v) give the ways of controlling population growth.

Materials to use:

- pens
- exercise books
- an SST textbook, if possible

What to do

- Read the instructions carefully before you do the activity.
- Mind your spelling and handwriting.

Introduction

In Primary Five, you learnt about reasons for population growth. Look at members of your family. Do you think some years back the family members were the same number as you are today?

Step I

- i) Population growth refers to the general increase in the number of people living in an area.
- ii) Population growth rate refers to the rate at which population size changes.

Step II

- i) There are many factors that make the number of people increase in an area. Think about the marrying of wives, early marriage and failure to use family planning methods. All these factors contribute to population growth. Giving birth to many children will lead to an increase in the number of people.
- ii) Factors that influence population growth
 - High fertility rate in women
 - Failure to use family planning methods
 - Early marriages
 - Religious beliefs
 - Improved health facilities
 - Polygamy
 - Immigration
 - Improved diet
 - Low death rates
- iii) Dangers of population growth
 - It may lead to environmental degradation.
 - It may lead to unemployment.
 - It may lead to land shortage.
- iv) Ways of reducing population growth
 - Use of family planning methods.
 - Discouraging early marriage/polygamy.
 - Teaching people the dangers of a large family.

Activity

1. With the help of your parents/guardian, find out
 - a) the causes of large families
 - b) the dangers of large families.
 - c) disadvantages of population growth for the environment.
 - d) ways in which a large number of children in a family can be avoided.
2. Ask your parent/guardian to help you know how each of the following can lead to population growth.
 - a) Early marriage
 - b) Polygamy
 - c) Religious belief
3. How can the governments of East Africa control population growth?

INTEGRATED SCIENCE

Before we start our lesson, do not forget that COVID-19 is a disease affecting every country in the world:

To protect yourself from COVID-19;

- Stay at home.
- Keep a distance of at least 1 metre from other people.
- Wash your hands very well with soap and water regularly.
- Do not touch the **soft parts** (eyes, nose, mouth) because the virus can pass through these to enter the body.
- Do not spit anywhere.
- Cover your mouth with a tissue when coughing.
- Use a tissue for your nose when sneezing.

INTEGRATED SCIENCE SELF-STUDY MATERIAL

Primary Six (P6) LESSON 1: Classification of Animals

Introduction

The world has very many types of animals. Animals that belong to the same type have similar characteristics. One way to group all these animals is to organise them by similar characteristics or by properties. The process of organizing these animals according to their properties is called classification. To classify means to put in groups.

Activity 1

In this activity, you are going to classify animals in your environment (put them in groups) according to their properties.

The animals in your environment can be found in the soil, on trees, in stagnant waters, in grass, or living on land.

1. Make a list of all animals in your environment and those you know about.
2. Create groups of animals according to;
 - i) The way they live
 - ii) The way they feed
 - iii) The way they move
 - iv) The way they reproduce (give birth)

Summary

You will realise that animals in the environment are different from each other. Some are very small, others have limbs, some do not have limbs, others have wings, some are very harmful while others are harmless and many other observations.

LESSON 2:

Classification of Animals

Introduction

In the previous activity, you were able to group animals by the way they live, move, and reproduce. In this lesson, you will learn more about the different body structures which animals in the environment have.

Activity 2

Observation one

1. Ask one of your brothers or sisters to bend forward.
2. Press your fingers on his/her neck firmly.
3. Run your fingers along the middle of the back from the neck down to the waist.

What exactly do you feel?

Observation two

1. Take an observation of some domestic animals such as goats, cows, rabbits, dogs or any other you can find around home or in your neighborhood.
2. Look at their body formation and structure.
3. You must have felt or observed a long tough bone that runs from the neck to the waist of your brother or sister. The long tough bone observed is called a backbone. Animals in the environment with such a bone are called **vertebrates**. Animals without a backbone are called **invertebrates**.

Activity 3

1. Using the list of animals in your environment, classify them as vertebrates and invertebrates.
2. In your notebook, name any six vertebrate animals.
3. Write short notes on;
 - a) how they reproduce.
 - b) the way they feed their young ones.
 - c) the way they obtain food.
4. Write a short story about how to take care and protect vertebrates and invertebrates.

MATHEMATICS

Primary Six

Topic 1: Whole Numbers

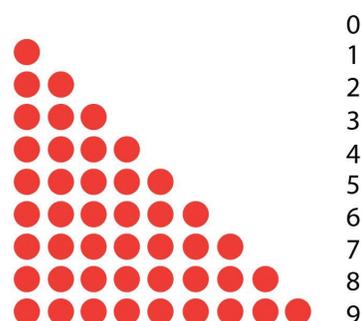
LESSON 1: Place values of numbers

In this lesson, you will need counters. These can be bottle tops, stones, sticks, bean seeds or any anything you can use to count.

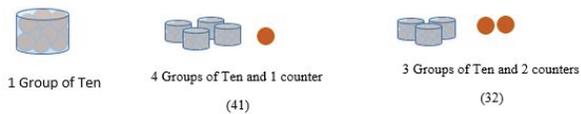
The Hindu-Arabic system uses ten symbols for counting. These are

0, 1, 2, 3, 4, 5, 6, 7, 8, 9. These ten symbols are called digits. To show you how the number system works, we are

going to use a number place. Consider a number place to be a space that can hold only one digit at a time. The diagram below shows the counters and the equivalent digit written in a number place.



The system works well up to nine because we have one space and the number written is only one symbol. Remember, we have used all the digits but also the number space is used up. To continue counting, we need to form groups. If we add one more counter, we make ten. Get the ten counters into one group to form a group of ten counters. This helps us to create another number space that allows us to count in groups of ten.



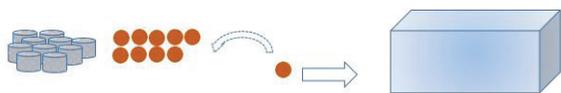
The number place that helps us count in groups of ten is called the tens place. It helps us count more using the same ten digits we had at the beginning. The number place we started with is called ones because we used it to count one counter at a time.

Stop and Think!

How would you explain the diagram below using groups of ten and number of counters?

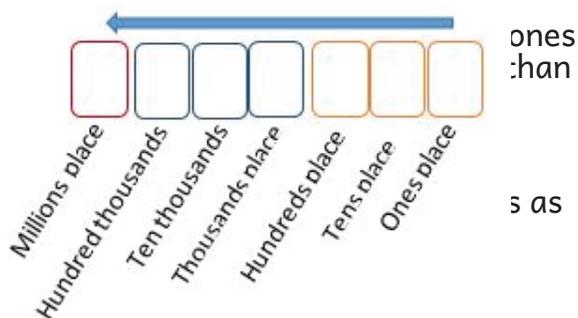


As you continue adding more counters, there comes a time when you get 9 groups of ten and 9 counters.



If we add one more counter, it means we are forming another group of tens which cannot be expressed using our nine digits in the tens place. So we create another bigger group that is made up of ten groups of ten or one hundred counters. This comes with creating another number space that helps us count such groups.

The process of creating new number spaces continues whenever you need more space for new counters. Please note that each time we add a new number place, it represents groups that are ten times bigger than the previous number place. For example:



This arrangement helps us understand the meaning of the term place values. The number place that the digit is in determines its value hence the name place value. If you consider a number 2, its value is two ones when it is in the place for ones, but the same digit in the place for thousands, its value is two thousand.

Activity 1

State the place value for 3 in each of the numbers below

- 36,486
- 8,360
- 868,623
- 3,709,718
- 832

LESSON 2: Value of numbers

Writing numbers in expanded form

Writing numbers in expanded form requires you to make use of the place values. For example, let us use the number 5437 to explain the expanded form.

When writing a number in expanded form, we make use of zeros to show the place value for each of the digits in a number.

In the number 5437,

5 is in the thousands place. Its value is 5,000

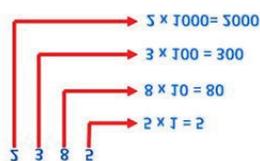
4 is in the hundreds place. Its value is 400

3 is in the tens place. Its value is 30

7 is in the ones place. Its value is 7

Therefore $5437 = 5,000 + 400 + 30 + 7$ in the expanded form.

In 2385, the place values of the digits are given below:



Hence, $2385 = 2000 + 300 + 80 + 5$

Activity 2

Write the following numbers in expanded form:

- 8,463,973
- 93,749
- 73,499
- 936,492
- 1,947,980

Writing numbers in words

Place values can also be helpful in writing a number in words. This is normally used in banking halls for filling in a deposit or withdrawal slip.

Let us try out writing the number 1427596 in words.

Since we are still learning, let us start by drawing a place value chart. We shall pick the information from the place value chart and use it to write in words.

| MILLIONS | | | THOUSANDS | | | Thousands | Hundreds | Tens | Ones |
|----------------------|------------------|----------|-----------------------|-------------------|-----------|-----------|----------|------|------|
| Hundreds of millions | Tens of millions | Millions | Hundreds of thousands | Tens of thousands | Thousands | Hundreds | Tens | Ones | |
| | | 1 | 4 | 2 | 7 | 5 | 9 | 6 | |

What is the value of each digit?

| | |
|---|-----------------|
| i) The value of 1 is million | 1,000,000 |
| ii) The value of 4 is four hundred thousand | 400,000 |
| iii) The value of 2 is twenty thousand | 20,000 |
| iv) The value of 7 is seven thousand | 7,000 |
| v) The value of 5 is five hundred | 500 |
| vi) The value of 9 is ninety | 90 |
| vii) The value of 6 is six | 6 |
| | <hr/> 1,427,596 |

Therefore, 1427596 is **one million, four hundred twenty seven thousands, five hundred ninety six.**

Activity 3

- What is the value of 2 in number 2768?
- Write nine million three hundred four thousand two hundred one in figures.
- What digit is in the ones place 58932?
- Imagine you are asked to deposit your school fees into the school account. On the bank slip you have to write the money in both figures and words. If your school fees is 876201, how will you write it in words?

Lesson 3: Roman numerals

Introduction

You covered Roman numerals in Primary 4 and 5.

Remember, the Roman numerals are expressed by letters of the alphabet: I, V, X, L, C, D, and M. Roman numerals are used from time to time on book chapter headings, and on clocks. Roman numerals help you to read and understand time on some watches and clocks.



In this lesson, you will need to have the books, watches and clocks where the Roman numerals are used, for your reference.

Phase 1

In Primary Four and Five, you learnt the four basic letters to read and write in Roman numerals: Write them in Hindu Arabic numerals

| |
|-----|
| I = |
| V = |
| X = |
| L = |

Activity 4

Make a watch like the one below from a hard box. Move the hands of the clock and tell time in Hindu Arabic numerals to the people at home.



Phase 2:

Use the chart below to help you answer the following questions.

| | | | | | |
|-------|------|-----------|-------|--------------|------|
| One | I | Eleven | XI | Thirty | XXX |
| Two | II | Twelve | XII | Forty | XL |
| Three | III | Thirteen | XIII | Fifty | L |
| Four | IV | Fourteen | XIV | Sixty | LX |
| Five | V | Fifteen | XV | Seventy | LXX |
| Six | VI | Sixteen | XVI | Eighty | LXXX |
| Seven | VII | Seventeen | XVII | Ninety | XC |
| Eight | VIII | Eighteen | XVIII | One hundred | C |
| Nine | IX | Nineteen | XIX | Five hundred | D |
| Ten | X | Twenty | XX | One thousand | M |

Remember that

1. A letter repeats its value at times 3 or 2 times. Look at this (XXX = 30, CC = 200, etc.).
2. If one or more letters are placed after another letter of greater value, add that amount. For example, VI = 6 (5 + 1 = 6)
LXX = 70 (50 + 10 + 10 = 70)
MCC = 1200 (1000 + 100 + 100 = 1200)
3. If a letter is placed before another letter of greater value, subtract that amount. For example:
IV = 4 (5 - 1 = 4)
XC = 90 (100 - 10 = 90)
CM = 900 (1000 - 100 = 900)

Exercise

1. Write 57 using Roman numerals.
2. Write 138 using Roman numerals.
3. Write 984 using Roman numerals.
4. Write CMLVI using Hindu Arabic numerals.

5. Write LXXXIV using Hindu Arabic numerals.
6. What is the time indicated on the clock below in Hindu Arabic?



Word problem

1. A teacher of Primary Six told his/her class to report back to school on XXVII April MMXX after the lockdown caused by COVID-19 disease has been lifted. What date is this in Hindu Arabic system.
2. At Musa's home, breakfast is always served at VII O'clock everyday. Musa went to Rome and he was served breakfast at VII and XV minutes. Write the different times breakfast was served in Hindu Arabic.
3. As the old woman was communicating to a friend found in Roman, she said "let us meet on November twentieth 1990 at 3:00 PM". The friend never understood the date and time. Help this friend to change the date and time to Roman numerals.

Activity 5

You want to get a loan of Shs M from your friend, who says that you will pay him back with an additional of Shs D. You do not seem to get it all at once. Show how much you will pay him when you make a payment. Write your answer in Hindu Arabic numerals.

Topic 2: Operations on Whole Numbers Not Exceeding 9,999,999

Lesson: Addition of whole numbers with and without regrouping

Introduction

Adding two (or more) numbers means to find their sum (or total). The idea of regrouping is very important for understanding addition of larger numbers.

Phase 1

Addition without regrouping

Example: $563423 + 426322$

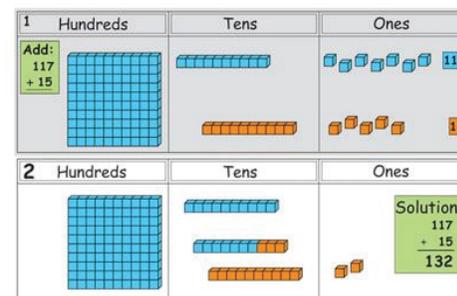
Arrange the numbers according to their place value. Put ones under ones, tens under tens and so on before adding.

Addition is done right to left.

$$\begin{array}{r} 563423 \\ +426322 \\ \hline 989745 \end{array}$$

Addition of whole numbers with regrouping

$$117 + 15 =$$



Regrouping is easily used when relating it to place values.

Try to complete this number:

Exercise

1. $257897 + 1234567 + 350654023$
2. $1,245,400 + 874621$
3. 1134

Word problem

Steps:

1. Read through the problem.
2. Determine what you are required to do.
3. Use the place value chart and write the number in expanded form.
4. Write the number in word form.

People who have survived COVID -19 in USA are around 3 78924, in Spain 182,300 and in Italy around 39600. What is the total of the survivors?