



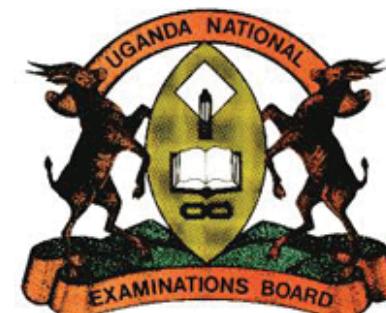
THE REPUBLIC OF UGANDA

Ministry of Education and Sports

SENIOR TWO

SELF STUDY MATERIALS

HUMANITIES PACKAGE



Geography

LESSON1: Location and Position of the Great Lakes and St. Lawrence Seaway

Learning Outcomes

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

- i) list the Great Lakes of North America.
- ii) describe the location of the St. Lawrence Seaway.
- iii) locate the Great Lakes and St. Lawrence Seaway on a map.
- iv) draw a map to show the Great Lakes and St. Lawrence Seaway.

Materials you need:

- a map showing the countries of North America
- a notebook
- a pen
- a pencil
- an eraser

Instructions

- You will be studying one lesson each day. Try to do all activities programmed for each day.
- Remember that some activities may take you more than one hour to complete.
- Read the instructions carefully before you begin doing each activity.
- In case you find an activity difficult, ask an older person around you to assist you.

Introduction

In Senior One you learnt about the major lakes and rivers of North America. In your notebook, write two lists; one of the major lakes and the second one of the major rivers of North America. Do you remember how important these lakes and rivers are to USA and Canada? In this lesson you are going to learn more about the Great Lakes and St. Lawrence River and how the two have been developed for transport.

Activity 1

Look at Figure 1 which shows the map of USA and Canada and use it to do the tasks that follow.



Figure 1: Map showing part of USA and Canada

1. Identify the lakes which are crossed or lie close to the border of USA and Canada.
2. Copy the map into your notebook and on it mark and name the:
 - i) lakes which you have identified in step 1 above.
 - ii) St. Lawrence River and its tributaries.
 - iii) towns and ports along the lakes and St. Lawrence River.
 - iv) estuary at the mouth of the St. Lawrence River.
 - v) ocean in which the St. Lawrence River pours its waters.
3. When the school re-opens, hand in your work to your teacher of Geography for comments and further assistance.

The five lakes which you have marked and named on your map are called the Great Lakes of North America. You can always remember them from the west to the east by the statement "**Some Men Have Eaten Oranges**" or "**Sister Mary Hates Eating Oranges**". The first letter on each word in the statement represents the first letter of the name of a lake. Such a statement is called a pneumonic.

In your notebook, list the Great Lakes following the order given by one of the above pneumonics. Try to create your own pneumonic for these lakes.

Activity 2

Using the sketch-map you have drawn in your notebook:

1. write two paragraphs to describe the location of the Great Lakes and St. Lawrence Sea way.
2. determine which of the Great Lakes is:

- o the largest
 - o the smallest
3. explain why St. Lawrence River is called a Seaway.

Summary

In this lesson you have learnt that:

- the Great Lakes and St. Lawrence River form a natural boundary between the United States of America and Canada.
- the Great Lakes, the St. Lawrence River and its tributaries form the most important water way in North America - the St. Lawrence Seaway.
- many cities and ports have grown up along the shores of the Great Lakes and in the St. Lawrence valley. This has been due to the presence of plenty of fresh water for domestic and industrial use, fertile soils which support farming, numerous industries and businesses which employ many people.
- the Great Lakes region and St. Lawrence valley is one of the most densely populated areas in North America.

Follow up Activity

1. Use the atlas/a textbook on North America or ICT tools to find out the positions of the following:
 - Cities and ports: Thunder Bay, Duluth, Superior, Cleveland, Sault Ste. Marie, Buffalo, Milwaukee
 - Gulf of St. Lawrence
2. Mark and name the cities and ports, and the gulf you have identified in (1) above on the sketch map which you drew in **Activity 1**.
3. Why do you think there are many towns and cities along the shores of the Great Lakes and the valley of the St. Lawrence River?

LESSON 2: Problems that faced water transport on the Great Lakes and St. Lawrence River before the Seaway project

Learning Outcomes

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

- i) describe the problems that affected

- transport in North America before the Seaway project.
- ii) identify areas which had bottlenecks on a map.

Instructions

- Try to do all activities programmed for this topic.
- Remember that some activities may take you more than one hour to complete.
- Read the instructions carefully before you begin doing each activity.
- In case you find an activity difficult, ask an older person around you for assistance.

Materials you need:

- atlas
- textbook
- photographs
- a notebook
- a pen
- a pencil
- an eraser

Introduction

You now know the Great Lakes of North America. You also know that one can sail along the Great Lakes and St. Lawrence River from the interior of North America to the Atlantic coast; and to overseas countries. This is a 3,700km journey. It takes only about 8 sailing days. In this lesson you are going to learn why in the early times, before 1959, it was not easy to use the Great lakes and St. Lawrence River as one waterway.

Activity 1

Read the passage and do the tasks that follow.

The Great Lakes and St. Lawrence Seaway is a 3,700 km route from the Atlantic Ocean to Lake Superior in the American interior. Sometimes it is called a "marine highway". The Great Lakes and St. Lawrence River have served as major North American trade routes since long before the US or Canada became an independent nation. Today, more than 200 million tonnes of cargo are transported on the seaway every year.

In 2020, it is expected that the St. Lawrence Seaway will reach a total of three billion tonnes of cargo since it was opened in 1959.

The cost of constructing the Seaway from 1954 to 1959 was over a thousand million US dollars (about 2,800 billion Uganda Shillings). It was shared between the governments of USA and Canada through international agreements which are still respected up to today.

However, before 1959 it was not possible for large ocean-going ships to sail from Atlantic coast to Duluth on Lake Superior. Large ships had only been able to sail either on the Great Lakes or from the Atlantic Ocean along the St. Lawrence River up to Montreal.

The St. Lawrence rapids had always been a major barrier along the water high way between Lake Ontario and Montreal. There were numerous sections with under-water rocks which used to affect navigation. Only small ships could sail along the shallow canals which had been constructed to by-pass the rapids. There were lots of delays as it took a whole week for these ships to sail from Montreal to Lake Ontario! The Niagara water falls between Lakes Erie and Ontario, which is almost 100 metres (300ft) high, was another barrier to navigation.

There was a conflict of development if these water falls were destroyed. They were, and still are, an important tourist attraction for USA; attracting over 2million visitors each year. Again, they were needed for producing hydroelectricity. In fact, the greatest concentration of developed hydroelectric power in the world is around Niagara Falls.

Though the idea to construct the Seaway had been discussed for many years, it faced strong opposition, especially from USA. The American railways, New York Port and other Atlantic ports, Montreal and Buffalo, New Orleans and other Gulf ports all opposed the seaway project.

A new era in marine transportation was made possible by construction of the 306-kilometer stretch of the St. Lawrence Seaway between Montreal and Lake Ontario during the mid to late 1950s.

- Describe at least six problems that faced transport in North America before the St Lawrence Seaway project was undertaken.
- Identify one problem which used to affect navigation on the Great Lakes and St. Lawrence River which is shown on the map but not mentioned in the passage.
- Draw a diagram and use it to explain how waterfalls can affect the movement of boats and ships on a river.
- Do you think ships can sail along river Nile from Lake Victoria to the Mediterranean Sea? Give reasons to support your opinion.

Activity 2

Suggest reasons why the following had strongly opposed the Seaway project thereby delaying it:

- The American railways
- New York Port
- Montreal and Buffalo
- The Gulf ports

The difficulty to sail along the Great Lakes and St. Lawrence River was worsened by the fact that the Great Lakes lie at different heights. So it was not easy to sail from one lake to the other.

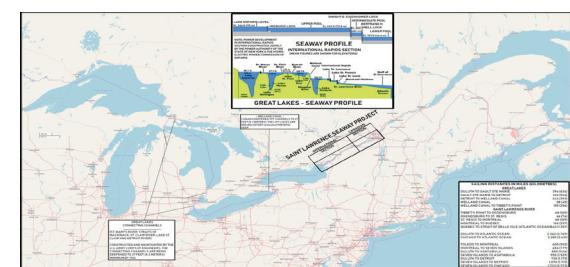
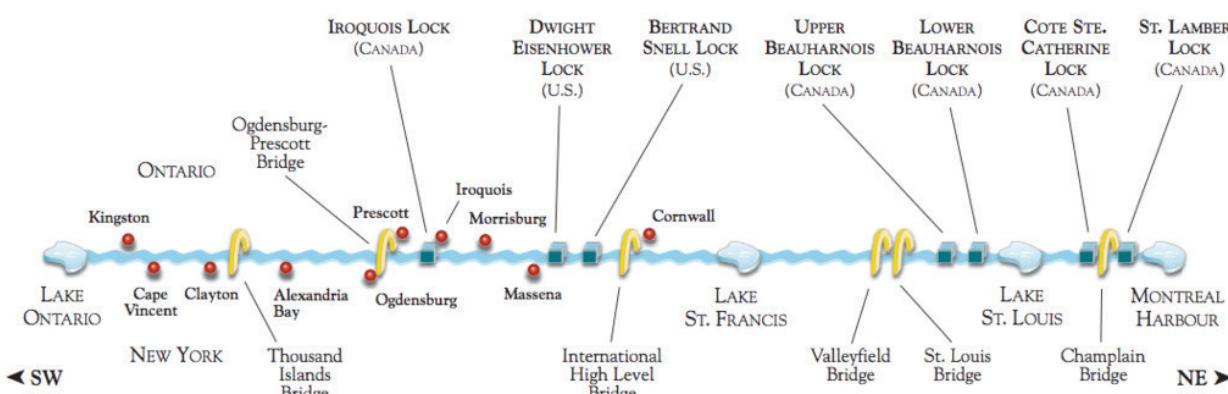
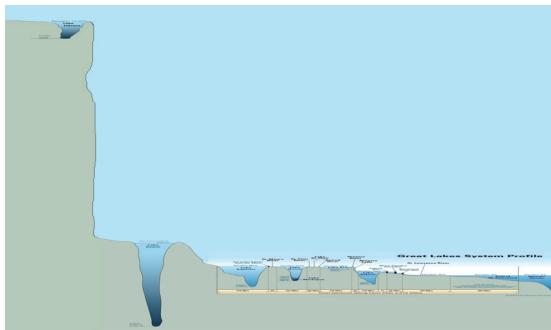


Figure 3: A Cross section through the Great Lakes and St. Lawrence Seaway





Activity 2

- Copy Figure 3 in your notebook and on it mark and name the:
 - Great Lakes and their heights in metres
 - St. Lawrence River and Atlantic Ocean
 - Welland Canal
- Identify the points at which navigation was very difficult. Give reasons to support your suggestions.

Summary

In this lesson you have learnt that:

- the Great Lakes and St. Lawrence River form a natural boundary between the United States of America and Canada.
- the Great Lakes, the St. Lawrence River and its tributaries form the most important water way in North America - the St. Lawrence Seaway.
- many cities and ports have grown up along the shores of the Great Lakes and in the St. Lawrence valley. This has been due to the presence of plenty of fresh water for domestic and industrial use, fertile soils which support farming, numerous industries and businesses which employ many people.
- the Great Lakes region and St. Lawrence valley is one of the most densely populated areas in North America.

Follow up Activity

- Copy the table below in your notebook and use it to classify the problems which used to affect transport in North America before the Seaway project.

Natural/ Physical Problems	Human Problems

- Explain what Uganda can learn from the historical geography of the St. Lawrence Seaway.

LESSON 3: Steps taken to solve the problems that faced water transport on the Great Lakes and St. Lawrence River before the Seaway project

Learning Outcomes

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

- explain the steps which were taken to solve the problems that affected transport in North America before the Seaway project.
- identify areas of these solutions on a map.
- recognise the solutions on diagrams and photographs.

Instructions

- Try to do all activities programmed for each day.
- Remember that some activities may take you more than one hour to complete.
- Read the instructions carefully before you begin doing each activity.
- In case you find an activity difficult, ask an older person around you for assistance.

Materials you need:

- textbook
- photographs
- diagrams from the Great Lakes and St. Lawrence valley
- a notebook
- a pen
- a pencil
- a foot ruler
- an eraser

Introduction

Now that you know the problems that used to affect water transport on the Great Lakes and St. Lawrence River, think about how such problems could have been solved. In this lesson you are going to learn how the problems to navigation were solved, the steps involved and the difficulties which were faced by both governments and engineers.

Activity 1

Look at Figure 3 in Lesson 2 again.

Initiated in 1954 and completed in 1959, building the Seaway required:

- Some 22,000 workers
- Moving 210 million cubic yards of earth and rock

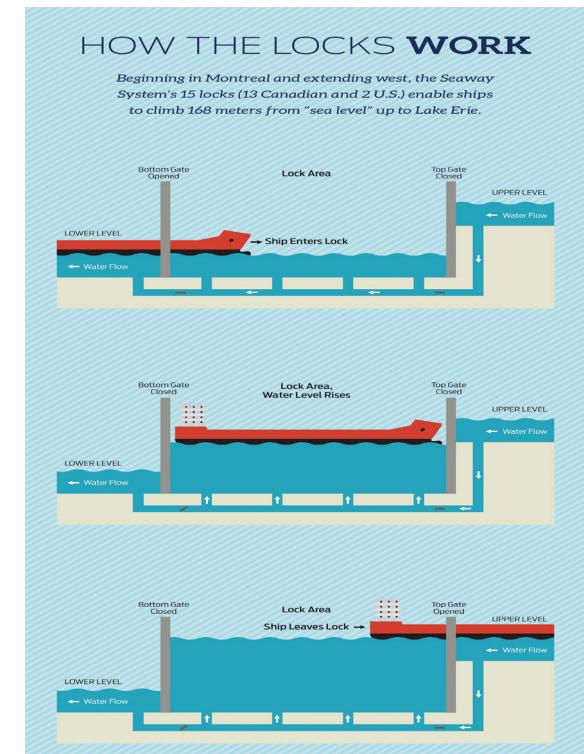
- Pouring over 6 million cubic yards of concrete

In 2020, it is expected that the St. Lawrence Seaway will reach a total of three billion tonnes of cargo having transited its locks since it initially opened in 1959. This rapidly approaching milestone serves as a strong testimony to the Seaway's ongoing role as a vital trading gateway connecting the heart of North America to over 50 trading nations across the globe.

In a typical year, about 25% of Seaway traffic travels to and from overseas ports, especially in Europe, the Middle East, and Africa.

Administration of the St. Lawrence Seaway

The St. Lawrence Seaway was built as a binational partnership between the U.S. and Canada through international agreements that carry the weight of treaties, and continues to operate as such. Administration of the waterway is shared by two entities, the Saint Lawrence Seaway Development Corporation in the US, a federal agency within the US Department of Transportation, and the St. Lawrence Seaway Management Corporation in Canada, a not-for-profit corporation established by the Government of Canada.



Over the last 200 years, navigation improvements in both the U.S. and Canada have enhanced the waterway. The resulting deep-draft inland navigation system is the longest in the world, extending 3,700 kilometres (2,300 miles) into the North American heartland.

The Great Lakes St. Lawrence Seaway System has remained a vital deep draft waterborne transportation link for moving goods between North America's heartland and international markets since it opened in 1959. The Seaway System encompasses the St. Lawrence River and the five Great Lakes, extending from the Gulf of St. Lawrence at the Atlantic Ocean to the western end of Lake Superior at the twin ports of Duluth, Minnesota, Superior and Wisconsin. Management Corporation (Canadian partner) and the St. Lawrence Seaway is a model of binational cooperation between the St. Lawrence Seaway Development Corporation (US partner).

Over 80 percent of seaway traffic is made up of bulk cargoes such as grains, iron ore, coal, chemicals and oil. Manufactured goods of all kinds, including finished and semi-finished steel products make up the rest of the Seaway cargoes. Ships from more than 50 nations call at the Seaway ports in Canada and the United States. Since its opening, the St. Lawrence Seaway has moved more than 2.5 billion metric tons of cargo with an estimated value of more than \$375 billion. Almost 25 percent of this

cargo travels to and from overseas ports.

Cargoes include iron ore, coal, steel, aluminum, machinery, stone, cement, grain, sugar, fertilizers, road salt, petroleum products and containerized goods.

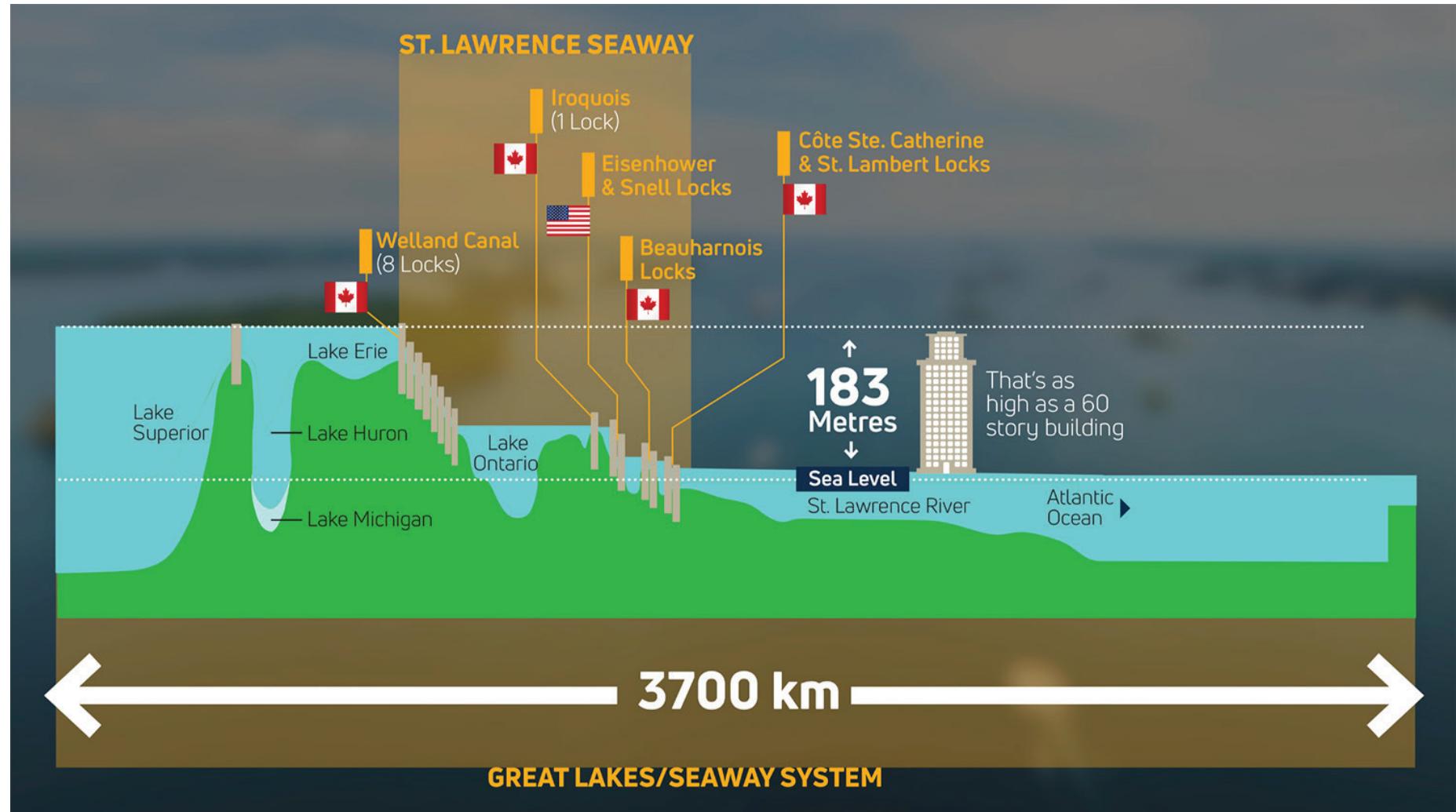
Benefits of the Seaway --Jobs on the Seaway

For every ton of cargo, there are scores – often hundreds – of human faces behind the scenes. On board, there are the mariners themselves, while on the shore side there are: lock operators and longshoremen; vessel agents and freight forwarders; ship chandlers and shipyard workers; stevedores and terminal operators; Coast Guard personnel and port officials; railroad workers and truck drivers – wide web of service providers.

Summary

In this lesson you have learnt that:

- the Great Lakes and St. Lawrence River form a natural boundary between the United States of America and Canada.
- the Great Lakes, the St. Lawrence River and its tributaries form the most important water-way in North America - the St. Lawrence Seaway.
- many cities and ports have grown up along the shores of the Great Lakes and in the St. Lawrence valley. This has been due to the presence of plenty of fresh water for domestic and industrial use, fertile soils which support farming, numerous industries and businesses which employ many people.



History

Senior 2 Term 1

Lesson 1: The Ngoni Invasion into East Africa

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

- i) state the background of Ngoni people.
- ii) explain the reasons for migration of Ngoni people
- iii) describe the course of Ngoni migrants.

Materials you will need:

Textbooks, pen, notebook, Atlas and internet access, where possible.

Instructions

1. Use a hand book for Senior 1 history.
2. You can make reference to other related books.
3. If possible, consult an adult and Google/internet while doing an activity.

Introduction

Who were the Ngoni?

The Ngoni were the Bantu speaking people of Africa who for long time had lived in South Africa North of Zululand until sometime when they could not stand the bad leadership of King Shaka. In 1820 they were led by Chief Zwangendaba into Tanzania. By 1835 they had crossed River Zambezi, matched through Malawi and Zambia and by 1840 they had settled at Ufipa plateau of southern Tanzania and by 1860 they had settled near Lake Victoria.

Reasons for their Migration

Many reasons caused the Ngoni to move from South Africa. One of the main reasons was the character of King Shaka. He was very aggressive and attacked and annexed every nearby territory. When he attacked and annexed part of Nguni society the Ngoni group decided to move away to East Africa.

Shortage of land and overpopulation was another challenge. They lived in Drakensberg Mountains and they faced a problem of overpopulation and shortage of land. To reduce this challenge they moved away into South Africa.

A number of societies around the coast competed for profitable trade with the Portuguese traders and this made the weaker states to migrate and leave South Africa. Societies like Mthethwa, Zwinde, xhosa among others were tougher than Ngoni who decided to move away and settle in East Africa.

The military age evolution of the Zulu kingdom where Shaka Zulu had trained his soldiers some of whom were the Ngoni people. This caused them to desire to export and discover their military strength and it resulted into the migration of the Ngoni people.

Activity 1: Reasons for the Ngoni migration

1. What challenges were met by the Ngoni migrants into East Africa between 1820 and 1860?
2. What are some of the current reasons that cause people to migrate today?

Course of the Ngoni Movement

The Ngoni moved Northwards across Mozambique, Angola into East and Central Africa. Their movement was characterized by raids, destruction of property, and devastation of villages leading to a time of trouble commonly referred to as "Mfecane".

Zwangendaba was their leader and they left their cradleland in 1821, and by 1836 they had temporarily settled among the Tonga people in South West Mozambique. Using the unique experience of Zulu kingdom, Zwangendaba's followers proved quite strong and displaced the Tonga from their area. The Ngoni did not settle here for a long time. They later moved northwards capturing and absorbing people into the regiment and recruiting many others for the expansion of the Ngoni areas.

By 1840, Zwangedaba's followers had entered Ufipa plateau north of Malawi and they made

their first settlement in East Africa on this land. The local population was defeated and forced to shift to unfavourable mountainous areas of South Tanganyika.

About 1844, Zwangendaba died and his group split into other five smaller ones. After a series of succession disputes, two of these groups i.e. Tuta and Gwangara moved northwards into Tanganyika while Mbewwa and Quasi Ngoni groups moved into present Zambia and founded a new smaller state there.

The Tuta Ngoni inside Tanganyika are responsible for amalgamation of many dispersed Nyamwezi chiefdom into one organized loosely centralized Nyamwezi state in need of protection against Ngoni invaders. In the process they captured Mirambo as a young man and when he was released, he became a military genius and a statesman who established the Nyamwezi kingdom to its 19th century climax. Meanwhile some of the Ngoni speakers in the same period migrated to other parts of East and Central Africa like the Ndebele people today residing in Zimbabwe. They were led by Mzilikazi.

Another group from South Africa under the leadership of Mzilikazi moved Northwards across Drakensberg mountains. They first settled in Transvaal republic but due to Zulu and Boer pressure, they were forced to cross River Limpopo and finally settled in present day Zimbabwe where they founded a famous Ndebele kingdom. Holoholo currently residing in Zambia migrated from the Barotseland.

Activity 1

1. Draw a map of East Africa and show the routes that were used by the Ngoni migrants.
2. Give reasons for the success of the Ngoni migration.
3. Explain the results of the Ngoni migration into East Africa.

Lesson Summary

The Ngoni migration is responsible for the

many current social, political and the economic issues in East Africa. Reasons for their migration, success and their effects are quite clear in East Africa.

Follow-up Activity

1. Find out the nature of current migration and identify its related problems.
2. Suggest ways of solving such challenges.

Lesson 2: Long Distance Trade

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

- i) explain the meaning of the term Long distance trade.
- ii) find out the reasons for growth and development of long distance trade.
- iii) describe the organization of long distance trade.

Materials you will need:

Textbook, pen, notebook, Atlas and internet access where possible.

Instructions

1. Use a hand book for Senior 1 history.
2. You can make reference to other related books.
3. If possible, consult an adult and Google/internet while doing an activity.

Introduction

Long distance trade involved long distance movements by the people in search of trade items and delivering of the imported goods to the interior. The trade was conducted by the people of East Africa and foreign traders largely centred at the East African coast. Many interior tribes like; the Yao, Chagga, Akamba, Kikuyu, Maasai, Baganda, Banyoro, Galla, Basoga and the Itesots were involved in this trade. The foreign traders were the Arabs, Indians, British and Portuguese among others.

Reasons for growth and development of long distance trade

Many factors worked jointly to explain the rise of long distance trade. The key ones include the following;

- Tribes in East Africa produced surplus goods and there was need to find market outside their communities for them.
- Some of these goods like iron implements were on high demand all over East Africa and this gave them unlimited market
- Similarly foreign goods such as guns, beads and cloths were on high demand and so people had to move long distances in search of them.
- The opening of trade routes in the interior enabled traders to reach all corners and this enabled them to collect and transport their goods with ease.

Division of labour among East Africans facilitated the development of long distance trade. Men specifically carried out hard work such as clearing the gardens and later they devoted the rest of their time to trade as the women did the work of planting, harvesting and other domestic work.

The introduction of guns improved security along the trade routes, people would transact without fear of being robbed or attacked by enemies. See the figures below.



Figure 7.2.4: Gun



Figure 7.2.5: Pistols

The nature of the land especially for the Nyamwezi facilitated the development of long distance trade. It was very flat and enabled easy movement of people and goods from one place to another,

There was co-operation and good working relations between the interior tribes and the coastal people, this helped the trade to develop.

The settlement of Sayid Said in Zanzibar increased the demand for slaves because he needed them to work on his clove farms. He provided security for incoming traders and his other activities further developed the trade because he encouraged trade caravans into the interior.

Traditional love for traveling long distance by some interior tribes, like the Yao caused trade to develop. In addition Zanzibar's creation of market for a wide range of goods and playing the middleman role helped long distance trade to develop.

Some societies had superior skills that enabled them to make superior products compared to their neighbours like high quality iron products that were demanded by other societies. This boosted the development of long distance trade.

Activity: Benefits of long distance trade

1. Use ICT or textbook research, to identify the benefits of Long distance trade. Present your findings to your family.
2. Mention the traditional leaders who were involved in this trade.

Organisation of Long Distance Trade

It covered long distances and that is why it was called long distance trade. The Yao were the most active long distance traders in East Africa. The Arabs and Waswahili traders organized caravans into the interior and set up markets and trade routes. They established trade routes such as the route from Ujiji via Tabora to Bagamoyo. They travelled to Katanga in DRC for iron, salt and copper. Trade in East Africa was known as "the long distance caravan trade". The caravan trade was started by African peoples,

the Yao, Nyamwezi, Kamba, in about the first decade of the 19th century. They extended trade routes upcountry.

By 1700, the Mijikenda controlled the trade between the coast and the interior and later the Akamba from around 1750 replaced them. The Akamba became leading caravan traders because of three main reasons. These reasons were the environment, their strategic geographical position and entrepreneurship.

The Nyamwezi organized trading expeditions under their chiefs up to the coast with ivory, copper, slaves, wax hoes, salt and copra. They

returned with cloths, beads and mirrors. They established trade routes such as the route from Ujiji via Tabora to Bagamoyo. They travelled to Katanga in DRC for iron, salt and copper.

Activity

1. Draw a map of East Africa and locate these trade routes.
2. Identify the problems that were met by the long distance traders.

Lesson Summary

In this lesson you learnt the meaning of the

term "long distance trade", the reasons for its growth and expansion plus the organisation of the long distance trade.

Follow-up Activities

1. Find out the results of long distance trade in East Africa.
2. Discuss the significance of this long distance trade today.

Entrepreneurship Education

PROJECT: Making charcoal briquettes, designing a poster for advertising them and making a package for the briquettes

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

1. Identify the right materials needed for making charcoal briquettes.
2. Make charcoal briquettes.
3. Explain three benefits of using charcoal briquettes in relation to ordinary charcoal.
4. Write a brief report on making charcoal briquettes explaining some of the challenges faced while making the briquettes, how these were overcome and any lessons learnt from the project work.
5. Design a poster for advertising your charcoal briquettes.
6. Identify the right materials for making packages, design a package for your charcoal briquettes and Label it.

NOTE: You can use any material you think will make your package attractive.

Read the scenario below and respond to the instructions given.

SCENARIO

HOME MADE SOLUTIONS TO EFFECTS OF THE CORONAVIRUS PANDEMIC

The world registered the first case of Coronavirus (COVID 19) in December 2019, in Wuhan City in China. The disease was declared a global pandemic by the World Health Organisation on 11th March 2020. By 14th April 2020, the pandemic had spread to 210 countries infecting over 2,000,000 people with close to 120,000 deaths registered.

To mitigate the spread of the virus and to avoid creating a fertile ground for its spread, His Excellency the President of the Republic of Uganda, Mr. Yoweri Kaguta Museveni ordered the closure of public gatherings like Schools, Churches and Bars, and suspended public transport on 20th March 2020. He further put in place a Task Force to

steer the fight against the **spread** of the disease. Among the measures taken, was to declare a national lock down and curfew from 7:00pm to 6:30am for 14 days.

The effects of the coronavirus are enormous, ranging from health, social and economic among others. Indeed, following the lockdown, a number of people have complained about failure to feed their families. Consequently, government provided food for such families. However, due to the lock down, fuel specifically charcoal, became expensive and scarce yet majority of families especially in the urban areas use it as a source of energy. As a learner of entrepreneurship, you are expected to provide solutions to business challenges.

Activity one

At your home, you have several resources like domestic waste, peelings and soil which you can use to make charcoal briquettes, to solve the problem at hand.

Task

- i. Identify the right materials needed for making the charcoal briquettes.
- ii. Make charcoal briquettes using the materials you have identified following the step by step procedure provided below.
- iii. Write a report, explaining some of the challenges you faced while doing the project work. How did you overcome the challenges? Mention any lessons you have learnt from the project work.
- iv. Explain three benefits of using charcoal briquettes.
- v. Assuming you want to make briquettes for sale, design a poster to advertise your charcoal briquettes, using either your exercise book or a plain sheet of paper whichever is available. Make your poster as attractive as possible.
- vi. Design a labelled package for your charcoal briquettes. You will present your report, the poster and the package to your class teacher when schools reopen after the lockdown.

Note: The project may not be finished in one day, you may choose to take a few days doing it. You can keep some of the briquettes for home use but keep some for presenting to your teacher as part of your project work

when schools reopen.

MATERIALS REQUIRED

SN	ITEM	ALTERNATIVE	QUANTITY
1	charcoal dust	Fresh cow dung	4 (tumpeco) cups
2	Soil	Anti-hill soil/brown soil/Clay	2 (tumpeco) cups
3	Water		4 (tumpeco) cups
4	Basins	Container	3
5	Gloves	Polythene bag/open hand	1pair
6	Plastic cup (tumpeco) = $\frac{1}{2}$ litre	Mug	1

Instructions

1. Make charcoal briquettes using some of the readily available materials at your home.
2. Use the cup (tumpeco) or mug to measure the materials.
3. Place the materials in different containers.
4. In case you do not have charcoal dust you can use cow dung in the same quantities.
5. Make sure you do not miss out on any step.
6. Record every step followed in the making of briquettes in your note book, because you will have to write the report for submission to your teacher.
7. Using your note book or a sheet of paper, design an advert for your charcoal briquettes.
8. Design a package for your charcoal briquettes. You will submit the report, the advert and the package to your teacher on the day of reporting to school.

Step by Step Procedure of Making Charcoal Briquettes

Please pay attention to every detail outlined in the step by step process provided below.

Step one: Preparing the waste materials

Using a pair of gloves, polythene bags or your free hands collect the waste materials to use as guided below. Be very careful with the safety of your hands.



Fig. 1. Putting on Gloves

Collect four cups of charcoal dust and put it in a container. If you do not have charcoal dust, you can use carbonized charcoal dust or fresh cow dung in the same quantities and follow the same procedure.



Fig. 2. Charcoal dust



Fig.3. Carbonized charcoal dust



Fig. 4. Fresh Cow dung Fig. 5. Plastic cup

Step two: preparing the charcoal dust

Sieve/filter the charcoal dust and remove the big particles, plastics and any other unwanted materials using your hands to remain with fine charcoal dust. (You can also crash the bigger particles into powder form and use it).



Fig. 6. A boy sieving charcoal dust.

Step three: preparing the soil

Collect two cups of soil preferably brown or anthill soil or Clay soil if its available but normal soil can also be used. Put it in a second container.

Sort the soil removing the bigger particles, sticks, broken glass, stones and plastics.



Fig.7. Brown Soil

Fig. 8. Any other soil



Fig. 9. Clay Soil

Step four: Measuring the quantity of water

Get a small Jerrycan/Jug or any other container and pour in four cups of water.

Step five: Making the mixture

Measure off two cups of charcoal dust and one cup of soil. Put them in a third container and mix them well using your hands until they are thoroughly mixed.



Fig.10 Mixing Charcoal dust, soil & water

Add water. Start with a small amount of water and mix it into the mixture using your hands. Keep adding water until the mixture becomes easily moldable. When squeezed, your mixture should hold together easily. When the mixture is too soft add more charcoal or soil, and if it is too hard add more water.

Step six: Molding the briquettes

Take a hand full of your mixture and mold using your two hands until it is hard enough. The mold or briquette can be in a round shape or any other shape you want. You can make briquettes of any reasonable size.



Fig. 12. Picking a handful of mixture



Fig. 13. Molding the mixture into briquettes

Step seven: Drying the briquettes

Place the molded briquettes on a flat surface ready for drying. Set your briquettes in a dry place. Briquettes need 2-3 days to dry properly before you can use them. If placed in an open place do not leave them outside because in case it rains they can get spoilt. Alternatively, you can dry them under a shade.



Fig.14. Laying molded briquettes on a flat surface for drying.

Step eight: Using your briquettes

Light your charcoal stove using a few usual charcoal pieces. When it is hot enough add the briquettes and cook.



Fig. 15. Lighting the charcoal briquettes and cooking.

Summary

After going through the step by step process, it is assumed that you now know what briquettes are. Below is an explanation of what briquettes are.

These are small, compact blocks made from organic waste which you can use for cooking in the charcoal stove or fire. While some briquettes require expensive machinery to make, others can easily be made at home from the locally available waste materials with no machinery required.



Fig. 16. Sample of Charcoal briquette



Fig. 17. Briquettes burning in a charcoal stove

Follow up activity

- Continue practising the making of charcoal briquettes until you perfect the process.
- You can sell the excess briquettes to your neighbours at the end of the lockdown. This will help you to save your earnings.
- In case you have access to the internet, you can make further research using Google on the other ways and materials you can use to make charcoal briquettes.
- Practice designing several adverts for the briquettes to have a variety from which to choose the best.
- Practice designing several packages for the briquettes to have a variety from which to choose the best.

NOTE: This project will enable you to answer Paper one at senior four during examinations.

English Language

SENIOR TWO ENGLISH LANGUAGE LESSONS.

LESSON 1.

TOPIC: Auxiliary verbs in verb phrases.

LESSON OUTCOMES:

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

- a) understand what auxiliary verbs are.
- b) use auxiliary verbs in sentences.

INTRODUCTION

Auxiliary (or Helping) verbs are used together with a main **verb** to show the verb's tense or to form a negative or question. The most common auxiliary verbs are **have, be, and do**.

- a) Does Sam write all his own reports?
- b) The secretaries **have** not written all the letters yet.
- c) Terry **is** writing an e-mail to a client at the moment.

Main Verbs and Auxiliary Verbs

The **main** verb is the most important verb. The **helping** verb comes before it. Some Common auxiliary Verbs are; **am, was, has, is, were, have, are, will and had**.

The main verbs in the sentences below are in bold print. Auxiliary verbs are in italics.

1. Alfredo **is training** for the Olympics.
2. He **has run** five miles each day.
3. His coach **will help** him next week.

Activity 1.

Underline the **helping** verb with a **single** line and the **main** verb with **two** lines in the following sentences.

Here is an example for you:

I am **reading** about the Junior Olympics.

1. She was racing in a wheelchair race.
2. Sarah had joined the Wheelchair Athlete Club.
3. The racers were using special racing wheelchairs.
4. They are training several times a week.
5. They have lifted weights too.

'Used to' as an Auxiliary verb.

Used to helps to form a special tense. It is used to indicate the **past** and never the **present**. Here is an example:

In the olden days, people used to travel everywhere on foot or on horseback.

This tells us that people did something at different times in the past.

'**Used to**' is also used to indicate a length of time, never just one particular moment. Here is an example:

I used to like palm-wine, but now it gives me a headache.

This tells us that the speaker liked something all the time in the past.

'Used to' meaning 'familiar with'

'**Used to**' can also be used as an adjective to mean 'accustomed to or familiar with'. For example:

The hoeing and digging soon made the clerk very tired, as he was not **used to** this sort of work.

Activity 2.

With reference to the current lockdown due to COVID 19, construct five sentences about the things you used to do in the past and five sentences about the things you have now become used to doing while at home.

NB : Ensure that what you have written are sentences (should give complete meanings).

Activity 3.

Write a brief description of your stay at home during the government lockdown. Use as many auxiliary verbs as possible.

Activity 4.

Identify the auxiliary verbs in the following sentences and use them to form sentences of your own.

1. Jerry caught his thumb in the car door as coffee spilled from his cup onto his favorite shirt.
2. Jerry is always spilling things.
3. Since Jerry is also accident prone, he should have been drinking coffee from a mug with a lid, which would not have spilled on his favorite shirt.

4. If he doesn't arrive on time, he'll have to take a later flight.
5. Unfortunately, our dinner has been eaten by the dog.

Activity 5:

- (a) As you read the poem, state the importance of education.

EDUCATION

Education my bread earner,
Education my life giver,
Education the source of everything.

Everywhere you go there is education,
In schools there is education,
In hospitals education treats the sick,
Every office treasures education.

Without it there is misery,
Without it there is poverty,
Without it there is slavery,
Without it there is no liberty.

If you want money, get education,
If you want a job get education,
If you want a posh car get education,
If you want bread be educated.

It is a key to success,
It is a way to life,
It is a source of hope,
It is a path to eternity.

By Osiine Asenath Bamureeba

- (b) There are figures of speech in this poem which give education human characteristics. List the expressions that personify education. Look over your list and explain what each expression means in the poem.

Adopted from: Teaching and studying Poetry: A guide for Teacher Trainers, Teachers and students; Editor, Connie Hab'Lyalemye

Activity 6

Create a poster advertising your own charity organization that is to help people affected by COVID 19.

Follow up Activity

Imagine you are an LC1 chairman of your village. Write instructions to your community about how to avoid contracting COVID 19.

LESSON 2

TOPIC: Descriptive Writing

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

Use adjectives, adverbs, active verbs and imagery in descriptive compositions.

Descriptive writing has got a number of purposes and can be meant for a number of audiences. The main purpose of any descriptive writing is to give readers a mental picture of what they are reading. When writing a description, you may wish to be either subjective (giving a personal point of view in which the feelings and reactions of the writer are an important part of the impression being created) or objective (standing back and trying to give a factual, unbiased account). When writing a description, we use adjectives, adverbs, action verbs and the proper tense.

Activity : 1.

At the end of the current lockdown, you return to school and your English teacher asks the entire class to write something about COVID 19. **Write a description of the effect of COVID 19 in your own community.**

Activity 2.

Write a short description of your home during this lockdown period and try to create a strong visual impression of what the place is like.

You might want to use the five senses namely: sight, touch, smell, taste and hear. Remember to use long sentences to create an impression of detailed description.

Activity 3.

Read and enjoy the following passage.

After the jackal and the lion had become friends, they often used to go out hunting together. But fearing that their friendship was not going to last very long, the jackal left his den and made a house for his wife and children on top of a very high rock. This he used to climb by means of a long rope, which his wife would let down for him when he arrived back from his travels and gave a necessary signal.

The lion, of course, always took a lion's share of everything that he and the Jackal had captured. This sometimes made the jackal angry, especially when it was he who discovered the game and tracked it down, down and all that the lion had done was to kill it. Further, the lion had become so lazy that he would not even take the trouble to carry home his share 'Take all the best parts to my lair,' he used to say, and then you can come back and have the worst parts for yourself.'

The jackal resolved to pay the lion out for this, and one day, when they had brought down a splendid lot of game the jackal took all of it to his own wife. The next morning the angry lion came to the foot of the rock and said 'just throw down your rope. I want to come up and have friendly talk.'

The jackal's wife and children were very frightened when they heard the lion's voice and they all began to tremble. But the cunning jackal had thought out what he would do.

Calling out to the lion that he would lower a rope he let down a piece of weak cord, which broke in the middle just as the lion had got halfway up down fell the lion who was killed on the rocks.

Activity 4. Now use the above passage to answer the following questions.

1. Which sentence explains the phrase, "a lion's share of everything"?
2. How do you know that the jackal was cunning?
3. In one way, the lion was cunning, and in another, he was stupid. Explain.
4. How far up was the lion when the cord broke?
5. Explain what is meant by "a lion's share".
6. Give the meaning of the following words as used in the passage.
 - a) 'signal'
 - b) 'lair'
 - c) 'resolved'
 - d) 'cunning'
 - e) 'tremble'

Follow Up Activity:

Imagine your village has been invaded by a swarm of locusts. Write an email to your friend describing the damage caused by the locusts to the environment.

LESSON 3

TOPIC: Direct and Indirect Speech

LESSON OUTCOMES:

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

- a) understand the difference between direct and reported speech
- b) use speech marks to punctuate my direct speech
- c) Convert between direct and reported speech.

You will need a pen, pencil and paper.

In reported speech (sometimes called indirect speech), the words someone speaks are 'reported'; the actual words spoken are not written down.

Let's look at the following sentences:

1. 'My favorite fruit is banana,' she said.
2. She said that her favorite food was banana.

In the first sentence, the actual words spoken are written down. This is direct speech. In the second sentence, the words are reported. As the speech that is being reported happened in the past, the present tense of direct speech becomes past tense in reported speech. In this case, this means **my** becomes **her** and **is** becomes **was**.

Here are the rules that guide you when changing from direct speech to reported speech.

Tense Changes in Reported Speech

- a) Present Simple Tense into Past Simple Tense
- b) Present Continuous Tense into Past Continuous Tense
- c) Present Perfect Tense into Past Perfect Tense
- d) Past Simple Tense into Past Perfect Tense
- e) Past Continuous Tense into Past Perfect Continuous Tense
- f) Past Perfect Tense (The tense remains unchanged)
- g) Will into Would
- h) Will be into Would be
- i) Will have into Would have
- j) Will have been into Would have been

Other Verb Form Changes in Indirect Speech

- a) Can into Could
- b) Could (The verb remains unchanged)
- c) Have to into Had to
- d) Must into Must/Had to
- e) May into Might
- f) Might (The verb remains unchanged)
- g) Should (The verb remains unchanged)

Changes in Time and Place in Reported Speech

- a) Now turns into then
- b) Today becomes that day
- c) Here turns into there
- d) This becomes that
- e) Tomorrow becomes the following day/the next day/the day after
- f) Next week becomes the following week/the next week/the week after
- g) Yesterday becomes the previous day or the day before
- h) Last week becomes the previous week/the week before
- i) Ago becomes previously or before
- j) Tonight becomes that night.

Introductory Verbs in Indirect Speech

- a) Tell, say, ask
- b) Verb + that + clause: complain, deny, explain, exclaim, remark, promise, boast,

- c) inform somebody, claim, agree, suggest
- c) Verb + to + infinitive: agree, offer, refuse, demand, threaten, promise, claim
- d) Verb + indirect object + to + infinitive: advise, allow, beg, command, encourage, forbid, invite, want, instruct, permit, urge, order, remind, warn.
- e) Verb + "ing" form: admit (to), accuse somebody of, apologize for, boast about/ of, complain to somebody of, deny, insist on, suggest.
- f) Verb + how: explain to somebody.
- g) Wonder.

Changes of Pronouns in Reported Speech

- a) *I* becomes *he* or *she*
- b) *we* becomes *they*
- c) *you* becomes *I, she, he, we, they*
- d) *she* remains *she*
- e) *he* remains *he*
- f) *it* remains *it*.
- g) *my* becomes *his/hers*
- h) *our* becomes *their*
- i) *ours* becomes *theirs*
- j) *mine* becomes *his/hers*

Activity 1.

Put the following sentences into indirect speech:

1. Mr West said, «I am very tired.»
2. He said, «I am flying to Rome tomorrow.»
3. George said, «I have lived in this village all my life.»
4. Helen said to me, «I hope you have enjoyed yourself.»
5. 'I will see you tomorrow,' said Sarah.

Activity 2.

Change the following sentences from indirect into direct Speech:

1. He asked me if I knew the manager.
2. She asked me if I liked her new house.
3. She asked the driver to give her a lift.
4. Helen said that she would give up trying.
5. George said he would do his best.

Activity 3.

Read and enjoy the passage below.

When Apire placed the gun clattering on the desk top, the policeman leaped up, eyes wide open with fear, and began backing towards the wall behind him.

'Hey, Officer,' Apire said, 'there's nothing to fear. I'm not mad, if that is what you think, I'm here only to report a crime I committed last night. Do you hear me?'

'What the hell do you mean by a crime you committed?' the cop finding his voice at last, bawled.

'I told you, didn't I? I killed a man and a woman

last night. My wife and her boyfriend. I caught them in the act. I want to make a statement.' 'I'm not going to make a statement from someone who might be demented for all I know. 'Then you may lock me up and go on to investigate.'

Activity 4.

Now answer the following questions.

1. Why did the policeman leap when he saw Apire?
2. Describe Apire's reaction when he saw the policeman.
3. Why did Apire commit the crime?
4. Describe the policeman's attitude towards Apire.

Follow Up Activity.

Imagine you have listened to or watched the president of Uganda give his weekly address about COVID 19. Write a 10 line paragraph reporting what the president has said about the government's decision to control the spread of corona virus.

LESSON 4

TOPIC: Active and Passive Voice

LEARNING OUTCOMES:

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

1. Understand meaning of voice
2. Distinguish between active and passive voice
3. Construct own sentences in active and passive voice.

Active voice means that a sentence has a subject that acts upon its verb.

Passive voice means that a subject is a recipient of a verb's action.

Active voice examples

- a) Monkeys adore bananas.
- b) The cashier counted the money.
- c) The dog chased the squirrel.

All the three sentences have a basic active voice construction: subject, verb, and object. The subject **monkey** performs the action described by **adore**. The subject **the cashier** performs the action described by **counted**. The subject **the dog** performs the action described by **chased**. The subjects are doing, doing, doing—they **take action** in their sentences.

Passive voice

A sentence is in the passive voice, on the other hand, when the subject is acted on by the verb. The passive voice is always constructed with a conjugated form of **to be** plus the verb's past participle. Doing this usually generates a preposition as well.

Passive voice examples

- a) Bananas are adored by monkeys.

- b) The money was counted by the cashier.
- c) The squirrel was chased by the dog.

Let's take a closer look at the first pair of sentences, "Monkeys adore bananas" and "Bananas are adored by monkeys." The active sentence consists of **monkeys** (subject) + **adore** (verb) + **bananas** (object). The passive sentence consists of **bananas** (object) + **are adored** (a form of 'to be' plus the past participle **adored**) + **by** (preposition) + **monkeys** (subject).

Activity 1.

Decide whether each of the following sentences is active or passive.

- a) The golf ball was driven down the fairway.
- b) The train crashed into the buffers.
- c) The film was released nationwide at the beginning of the month.
- d) The managing director congratulated the staff on their work.
- e) The staff were congratulated on their work by the management.

Activity 2.

Fill in the gaps in the following sentences with an active or passive verb, whichever is correct in the context. Indicate whether the verb you have used is active or passive.

- a) The pilot (verb) the signal to land.
- b) The dog (verb) the bone in the garden.
- c) The experiment (verb) by the chief scientist at the plant.
- d) In the ensuing confusion, the secret plans (verb) by the spy.
- e) In the lush green field the cattle (verb) contentedly.
- f) The lawn (verb) by the gardener.

Activity 3

Change the following active sentences into passive voice.

- a. I did not beat her.
- b. I will never forget this experience.
- c. Mother made a cake yesterday.
- d. The boy teased the girl.
- e. Did she do her duty?

Activity 4.

Read and enjoy the following passage.

What is a myth?

Long, long ago when the world was very young, Nanabozo, the creator, as the Indians believed, found himself very much alone. There

was nothing but water and air everywhere. He became very lonely. So as not to be alone, he created the muskrat, beaver, and otter, but soon they grew tiresome as companions.

He wondered why he grew tired of their company. He decided he needed different creatures as companions. But there was too much water.

'The water is not solid enough,' he said to himself. 'I need something on which to rest my feet. I think that if I could stand on something solid, I could put one foot in front of the other and walk around.' After further thought, he tied his longest fishing line to the muskrat, and told

him to dive as deep as he could and try to bring something up from the bottom of the water. The muskrat was gone a long, long time, and when he finally came up he was so tired that he died. But Muskrat did not fail, because between his tiny paws was a little ball of mud.

Nanabozo took this little piece of mud and rolled it, and rolled it and shaped it until it grew larger and larger and larger. When he was through with rolling and kneading and molding, the ball of mud was so large that thousands and thousands of creatures could live with Nanabozo as companions. Plants could grow and rivers could flow.

Being in such a hurry to create, Nanabozo left wet stretches here and there which will never be dry. These lands we know as muskeg. Nanabozo could now rest happily and proudly because of his handiwork. He had more companions and he could put one foot in front of the other and move about the beautiful world which he had built.

Follow Up Activity.

Write about any two myths you have heard about in your community.

SYMPTOMS OF CORONAVIRUS DISEASE 2019

Patients with COVID-19 have experienced mild to severe respiratory illness.

Symptoms* can include

FEVER



COUGH

**SHORTNESS
OF BREATH**



Seek medical advice if you develop symptoms, and have been in close contact with a person known to have COVID-19 or if you live in or have recently been in an area with ongoing spread of COVID-19.

***Symptoms may appear 2-14 days after exposure.**

Art and Design

Senior 2 ART AND DESIGN

Project Theme: Decorative arts

Topic: Multimedia: Mosaic art

Introduction

Mosaic is a branch of visual arts. It is an area that allow you to use almost any material to create a decorative artwork. Mosaic is done using a similar discarded material, or found items from the environment. These may be banana fibers, broken glasses, or broken floor tiles. There are many advantages when you use discarded or found items. These materials:

- Incur little or no cost
- Are always readily available
- Encourage re-use or recycling
- Are generally environment-friendly, and make you environmentally aware
- Give you the opportunity to be creative in finding, exploring and using materials.

Why make Mosaic art?

As a student of art and design, you need to be creative as you produce unique artworks to compete in the modern world. You have to practice the creative use of found and recycling of materials to produce something new and also to responsibly make use of the environment.

Resources

You will need:

- Note book, pencils, coloured pencils
- Paper, hard paper, glue, strings, cutters
- Any found or discarded materials or objects-ends of paper, broken tiles, stones, beads, leaves, seeds
- Paints and brushes if possible
- Computer with internet if possible

Mosaic Making Process

The process is formed by setting small pieces of a **similar material** on a firm base. Common materials used include stone, ceramic tiles, glass, beads, or wood. These materials are not easily bent like paper or fabric. They must be cut or broken to fit the design, or be used in their original shape and size. Different tools

and adhesives are required to separate or unite these materials. Look at figure 2.1 to study the materials used in a composition.



2.1 Figure showing examples of Mosaic art

Mosaic Techniques

Mosaic is similar to collage but due to the nature of materials used they slightly differ. The common techniques include:

Variation=the use of different shapes, sizes, and colour schemes of your pieces that adds interest.

Gradation=the subtle shifts in an element of art, for instance, the use of colour to vary its tones, or the increase in the size of shapes used in a design.

Creating shapes, patterns and motifs. These thoughtful use of multiple pieces to create lines and shapes that generates movement within the work. The more pieces you use the more possible it is to have a motif in your design.

Like any art work mosaic art is based on the three parts of: Subject, Composition and Content. The elements and principles of art are used as a vehicle to realise the project.

Key term

Motif: the main element or repeated symbol in an artwork

Step 1. Research on what you intend to do. Find out about something either by interviewing your parents, reading art books or using a computer with internet. Having prior information before is very key. Make a plan of translating your ideas or imaginations into tangible work of a sketch. Have a reason as to why you want to create the collage work.

Have you got an idea of what you want to do? Sometimes you will have so many ideas but you have to pick the most interesting one after sketching.

2. Select the topic/theme or brief

- Choose a topic or theme (if not given) that is simple to design.
- Create more than one drawing to open up your imagination.

3. Create the design

From your research and sketching, select drawings you have made based on the theme or subject you will use.

4. Transfer the design

- Reproduce your design drawing on the base.
- Draw out the objects you wish to represent in simplified lines to ease the application of the hard material.

5. Create the artwork

- Cut out your material into small pieces. Use adhesives to hold the pieces as you build up the design. Follow the contours of your lines as you create the images.

6. Finish the art work

- See that all edges are well stuck. Again, work carefully to avoid glue or paint where they are not needed. Keep flat and in a dry place, pinned to a flat surface, and allow to dry for some minutes.

7. Present the art work

People at home will be curious to see what you have done. Present your work to them and receive their criticism to help you improve the next project.

Create

Task: Based on the theme "Roundness" design and create a mosaic art using found and/or discarded materials. When you are done, invite your parents to take a look. Provide a page for them to make comments about your artwork. Keep these safely as in future they can become a source of inspiration for your art.

Reflection: Mosaic and Collage art have similarities and differences. What identifies them?



Examples of mosaic art



National Curriculum
Development Centre ,
P.O. Box 7002,
Kampala.
www.ncdc.go.ug