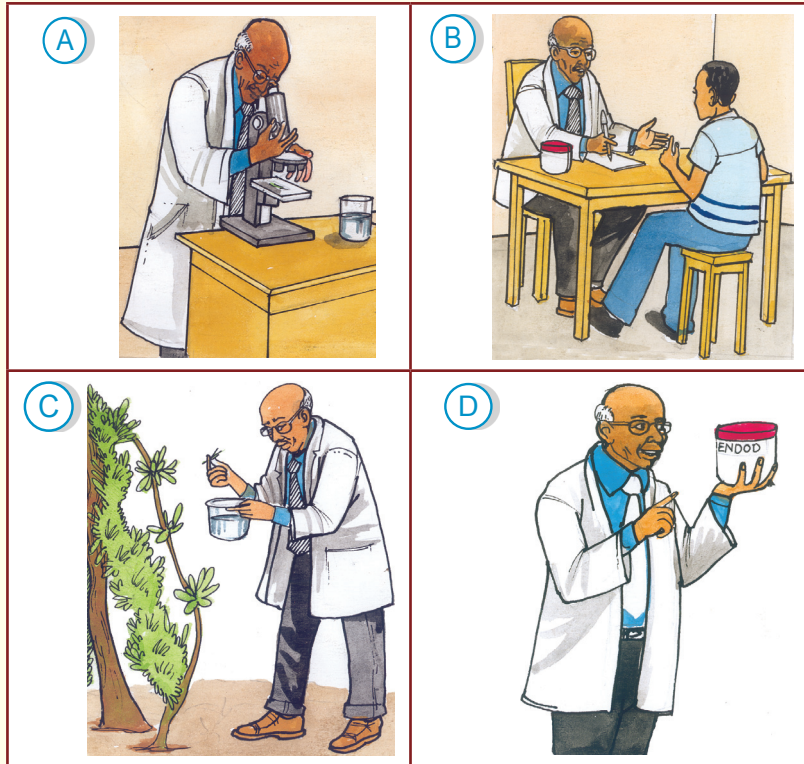


Objective

In this unit, you will be able to give information about discoveries and inventions.

A Listening and speaking**LESSON ONE****Activity 1**

These pictures tell a story about an important discovery. Tell your partner what you think the discovery was.

**Exercise 1: Answer these questions.**

1. What is the person in the pictures doing?
2. What is his profession?
3. Of what importance is his profession to our country?
4. Arrange the pictures in their proper sequence.

Listening practice

Activity 2

Study the picture. Work with a partner. Discuss the benefits of this lake to the local population. Identify the dangers you see in the lake.



Exercise 2: Your teacher will read a passage about the disease, bilharziasis; its causes and prevention. Listen carefully and answer the questions below.

1. Apart from bilharziasis, what other diseases do you know?
2. Describe the ways by which one can catch bilharziasis.
3. What is a parasite?
4. How can bilharziasis be avoided?
5. What is the role of scientists in each situation?
6. Explain how a person can be infected with bilharziasis.

LESSON TWO

Grammar practice

Using: must / mustn't

Activity

Work in pairs. Read and act the dialogue.

Ujulu : **Must we** take **traditional** medicine when we fall sick?

Jitu : No, **we mustn't**.

Ujulu : What **must** we do?

Jitu : We **must** visit a **doctor**.

Exercise 1: Repeat the dialogue but replace the words in bold with the ones below.

- Line 1. (Mustn't we), (modern), (severe illness)
- Line 2: (yes, we must)
- Line 3: (mustn't)
- Line 4: (mustn't) (sorcerer), (witch-doctor).

Exercise 2: Give answers for the following questions and compare them with a friend.

- What must you do when you fall sick?
- What mustn't you do when you fall sick?
- Must you visit a physician when you fall sick?
- Must you go to a witchdoctor when you fall sick?

Exercise 3: Work in groups. Complete the sentences in the table using **must/ mustn't**.

Children _____ swim in rivers.	They _____ avoid it.
Emebet _____ walk barefooted in dirty water.	She _____ walk on the sides.
We _____ drink water from lakes.	We _____ boil water.
People _____ bathe in dirty water.	They _____ bathe only with clean water.
Woinua _____ wash in dirty water.	She _____ take treatment.

Exercise 4: Form similar sentences from the table concerning what Bereket (must do) and (must not do).

Example: Bereket **must sleep** under a mosquito net.

Bereket **must not leave** the bushes around his house to grow wild.

Disease	must	mustn't
Malaria	sleep under mosquito net.	leave bushes to grow wild.
Diarrhoea	wash his hands with soap and water after visiting the toilet.	eat food with dirty hands.
Headache	take a lot of clean water and plenty of rest.	sleep under heat or sunshine.
Stomachache	see a doctor.	eat cold food.
Chest pain	go to hospital.	beat his chest.
Toothache	visit a dentist.	try to remove it.

LESSON THREE

Using: while / when and a past continuous / past simple tense

Read the following sentences and point out the verbs.

- When** she was running, she hurt her toe.
- While** Frewoine was yawning, a fly flew into her mouth.

Which two tenses can you identify in each sentence?

Exercise 1: Change the verbs in the brackets into their appropriate past tense form and join the clauses using **when** or **while**.

- Woinwa (cook) food, a bird (fall) in her sauce pan.
- Feyesel (pray), he (hear) loud voices outside his bedroom.
- Hundessa (sleep), she (hear) loud voices outside her bedroom.
- The policeman (stop) the cars. The children (cross) the road.
- We (watch) television. Power (go) off.
- It (become) dark. I (go) for prayers.
- The patient (feel) pain. The nurse just (look) on.

8. Kifleyesus (enjoy) his dinner. Burglars (break) into the house.
9. The doctor (drive). He (see) a damaged car parked on the roadside.
10. My father (sail). The boat (capsize).

Exercise 2: Write and complete the following sentences correctly. Share your work with a partner.

1. While I was going to school,
2. When my sister was cooking, she
3. While I was sleeping, the
4. When the bell was ringing, the teacher
5. While Tejetu was playing, she

Exercise 3: Construct sentences from the table using **when** and the **past continuous** with a **past simple** tense. Write the work in your exercise book.

Emebet	sharpening pencil.	cut her finger.
	walking along the road.	meet her friend.
	eating food.	bite her finger.
	talking to her friend.	the bell ring.
	sleeping.	have a nightmare.

Activity

Work with a partner. Write five sentences using **While / When** and a **past continuous** with a **past simple** in your exercise book. Discuss the work with your teacher.

Grammar highlight

When the past continuous is contrasted with the past simple tense, the sentence shows two actions that happened, with one preceding the other.

Example: *While the man was walking down the street, it started to rain.*

B Reading

LESSON FOUR

Comprehension

Activity

Discuss the following questions in groups.

1. Which important discoveries do you know?
2. Who was involved? When and where did this discovery take place?

Read the story below and answer the questions.

Bilharziasis – a deadly disease

Bilharziasis or schistosomiasis is spread by schistosoma (river fluke) which live inside snails along rivers and streams. Humans contract the disease when they come in contact with water inhabited by the snails. More than 200 million people worldwide are affected by the diseases.

In 1964, a young Ethiopian doctor and researcher, Aklilu Lemma discovered the remedy. He found out that soap made from a local plant, the soap berry or *endod* could cure bilharziasis. *Endod* grows in sub-Saharan Africa, parts of South America and Asia. It is a rapidly growing climber with hanging branches and it bears fruit twice a year.

The berries of *endod* have been used as laundry soap by Ethiopians for centuries. When dried and crushed, they are mixed with water to form a thick solution of lather detergent.

Dr. Lemma founded the institute of Pathobiology from where he carried out research on *endod*. He was later joined by Dr. Legesse Wolde-Yohannes in 1974 and work has continued ever since with other African countries joining in.

Endod soap is applied directly on the infected parts of a person's body. Also, direct application of *endod* to snail infested areas has yielded good results although disease awareness and its control need to be encouraged more among rural people. Before his death in 1997, Dr. Aklilu Lemma and his colleagues established the *Endod* Foundation to serve as an umbrella institution for all *endod*-related work.

Exercise 1: In your exercise book, answer questions 1 - 5 in complete sentences and choose the best option for questions 6 - 10. Compare your answers in small groups.

1. What is bilharziasis and where does it come from?
2. How do humans catch bilharziasis?
3. Who discovered the remedy for bilharziasis?
4. Describe the *endod* therapy.
5. Which part of the plant is used to make the medication for bilharziasis?
6. Name the medication and how it is used?
7. Outline Dr. Aklilu Lemma's contribution to the world of medical science.
8. Bilharziasis is the 2nd greatest killer after in the third world countries.

A. HIV/AIDS	C. schistosomiasis
B. malaria	D. hunger
9. Aklilu and Legesse's persistence means

A. they were slow.
B. they carried on with their work despite the difficulties they met.
C. they were patient.
D. they were weak.
10. The *endod* plant is now being grown and used

A. in hospitals.	C. for experimental control of bilharzia
B. for consumption.	D. worldwide.
11. Before doctor Aklilu's death was established for all *endod* related work.

A. an <i>endod</i> umbrella Institution	C. <i>Endod</i> vaccine
B. <i>Endod</i> hospital	D. <i>Endod</i> Foundation

Exercise 2: Work with a partner and find the phrases in the passage which mean the same as the following:

- | | |
|--|--|
| 1. causing great fear or horror (1 st paragraph). | 4. ratify (3 rd paragraph). |
| 2. discovered (2 nd paragraph). | 5. something that is founded (4 th paragraph) |
| 3. endurance (4 th paragraph). | |

Exercise 3: In your exercise book, fill the missing words in the gaps with the words from the box below.

soap bilharziasis discovered berries *endod* laundry

First, Doctor Aklilu _____ the remedy. He found out that _____ made from a local plant, _____ could cure _____. The _____ of *endod* have been used as _____ soap by Ethiopians for centuries.

Exercise 4: With a partner, form correct words from the following letters. The initial letter for each word has been provided.

Example: shilbaizisar = bilharziasis

tenptia = p

doned = e

pythera = t

corvedis = d

C Writing

LESSON FIVE

Writing a summary

Exercise: Use the points given below to write about bilharziasis.

- What is bilharziasis?
- What causes the disease and how does it spread?
- What are the signs and symptoms of bilharziasis?
- How can bilharziasis be prevented?

LESSON SIX

Writing a poster

Exercise: In groups, write sentences about the cause of bilharziasis and how it can be prevented. Put your information on a poster. Share your work with another group.

Activity

Supposing you had a chance of talking to Aklilu Lemma. What questions would you ask him? List your questions and find their answers from the text.

LESSON SEVEN

Using: which / who / that

What does each pair of sentences have in common?

1. Snails carry bilharzia.
Snails are found in lakes.
2. Aklilu Lemma discovered a cure for bilharziasis.
Aklilu Lema established the institute of pathobiology.
3. Addis Ababa is the capital of Ethiopia.
Addis Ababa has a large population.

Join the sentences above using **which**, **that** or **who**.

Exercise: Join the following pair of sentences using **which**, **that** or **who**.
Share your work with a partner.

1. A doctor discovered the cure for bilharziasis in Ethiopia from *endod*, a local plant.
His name was Professor Aklilu Lemma.
2. People get infected with bilharziasis. They live a miserable life.
3. Tamirat borrowed a book. It belonged to my nephew.
4. That desk belongs to my neighbour. You are now sitting on it.
5. The pen is mine. He is using it.
6. Girma saved the girl. She was about to drown.
7. The glass was green. The shoplifter stole it.
8. She wants to go to that school. It is very expensive.
9. Turbo killed a snake. It was about to bite him.
10. The doctor was very kind to us. He was wearing glasses.

Activity

In groups of three, form sentences using **which** **that** or **who**.

Grammar highlight

which and **that** are known as relative pronouns. They refer to objects or animals. **who** is also a relative pronoun. It is used for persons only.

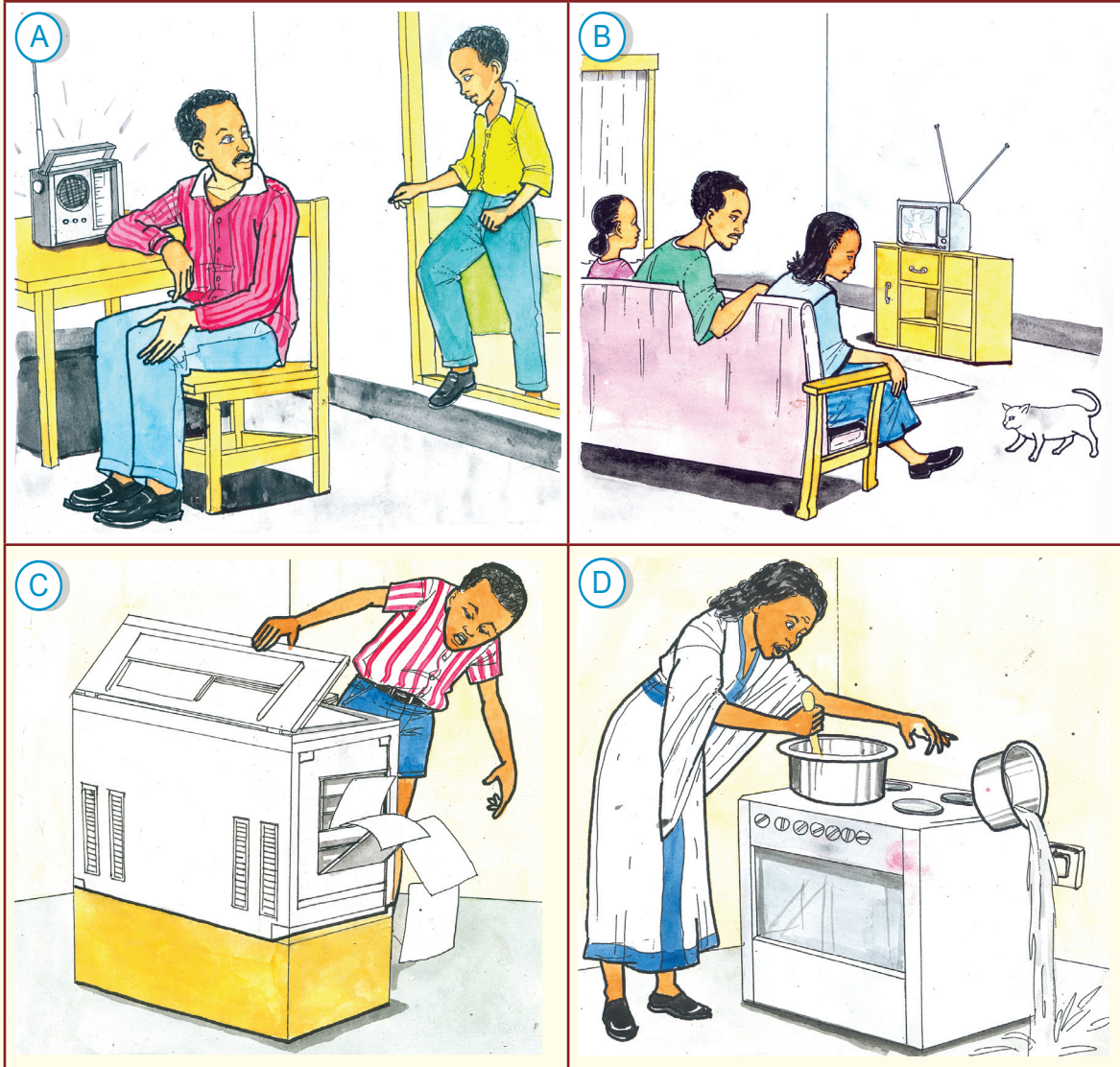
LESSON EIGHT

The past continuous tense

Activity

In groups of four, look at the pictures below. They show what happened yesterday. Talk about what was going on in each picture.

Example: While the man was listening to the news, a boy entered the house.



Exercise 1: Complete the following sentences with the past continuous tense of the verbs in brackets.

1. This morning, it _____ (not rain).
2. The phone _____ (ring) just as I left for school.
3. I said hello to them but they _____ (watch) TV.
4. When I arrived, the students _____ (head) to the library.
5. While the school was closed, we _____ (help) our parents in the garden.

Below is an account of what Jorge and Dusman did.

Jorge and her friend played tennis. They began at 10.00 a.m. and finished at 11.30a.m. Then they went to school at 12.00 noon. Jorge was in the school library until 3.00 p.m. She practised the piano from 3.30 p.m. until 4.30 p.m. and left school at 5.00 p.m.

Dusman was busy yesterday. He arrived at school at 10.00 a.m. He attended class until 12.30 p.m. He had lunch at 2.00 p.m. then he went to the farm at 4.00 p.m. and worked till 6.00 p.m.

Exercise 2: Answer the questions in complete sentences.

1. What did Dusman do while Jorge was playing tennis?
2. What did Jorge do while Dusman was attending class?
3. What was Jorge doing while Dusman had lunch?
4. What was Jorge doing when Dusman went to the farm?
5. What was Dusman doing while Jorge was leaving school?

Exercise 3: Put the verbs in the bracket into their correct form (past continuous or simple past).

I _____ (ride) my bicycle home yesterday when a man _____ (step) suddenly out onto the road right in front of me. Although I _____ (ride) fast I _____ (manage) to stop in time and _____ (save) his life.

LESSON NINE**Comprehension****Activity**

Discuss the questions below.

1. Have you ever seen a computer?
2. Where have you seen one? What is its use?

Read this passage**Machines with brains**

Have you heard anyone say that a computer is a machine with a human brain? Well, a computer is able to do all sorts of things that would make one think it is a magical device. Actually, a computer is so fascinating that it is frightening to think of what it is capable of doing. After all, computers will ask questions, play music and take pictures. They even relay information from one place to another so much so that they have turned the world into a global village.

However, computers do not have brains and they do not think at all! They are mere machines that are programmed by people to perform different tasks. And they complete the tasks with super speed and ease.

In the modern times of high level technology, the world is dependent entirely on computers which come in different makes and sizes ranging from mobile phones to laptops to desktop units.

Computers are used to process and store data in government offices, banks, hospitals, company businesses, educational institutions, space stations and even households.

Much as computers are useful devices, they are also a source of trouble since their networks make it possible to intrude and pry on people's privacy and access restricted information. This is called computer hacking. It has become a major challenge in this era.

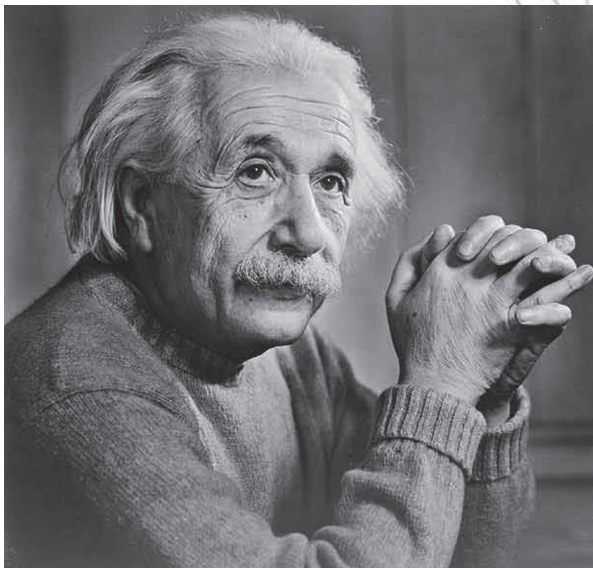
Exercise: Answer the following questions.

1. Why is the computer referred to as a **machine with brains**?
2. List some of the things a computer is able to do.
3. What makes a computer appear to have a brain?
4. Of what importance is the computer?
5. State one disadvantage of computer networking.
6. Why is the world referred to as a **global village**?

LESSON TEN

Composition

Read the story below.



Albert Einstein

Albert Einstein (14th March, 1879 - 18th April, 1955) born in Ulm, German was a physicist, philosopher and an author who is widely regarded as one of the most influential and best known scientists and intellectuals of all time. A German-Swiss Nobel laureate, he is often regarded as the father of modern Physics. He received the 1921 Nobel prize in Physics for his discovery of the law of photoelectric effect.

In 1911, he found out that light from another star would be bent by the sun's gravity. He is the founder of nuclear

energy responsible for making atomic bombs. He, however, regretted discovering this disastrous energy and in 1954, he made a formal apology to his friend. He also found out properties of gases and made many other contributions to Mathematics. Other scientists like Avogadro owe Albert Einstein credit for his formulation of many scientific principles from which modern day Physics is enshrined.

Exercise 1: Answer these questions.

1. Describe the man in the picture.
2. What did he invent or discover?
3. How did his discovery improve the science world?

Exercise 2: Suppose the title of the passage is: **The clever Professor**, draw a table to write Professor Albert Einstein's scientific achievements.

LESSON ELEVEN

Summary

Your teacher will read to you a passage about computers.

Exercise 1: Write a paragraph about the history and evolution of computers. Explain how they have affected the world we are living in. Your passage should be at least 200 words long.

Exercise 2: Summarise each of the five generations of computers into one sentence using the relative pronoun **which**.

Activity

Find a magazine or newspaper article about any prominent person or people. Highlight the main points about that person or those people. Write a summary about them.